

MAINVIEW®
for UNIX System Services
User Guide and Reference

Version 1.2

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- find the most current information about BMC Software products
- search a database for problems similar to yours and possible solutions
- order or download product documentation
- report a problem or ask a question
- subscribe to receive e-mail notices when new product versions are released
- find worldwide BMC Software support center locations and contact information, including e-mail addresses, fax numbers, and telephone numbers

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Before Contacting BMC Software

Before you contact BMC Software, have the following information available so that a technical support analyst can begin working on your problem immediately:

- product information
 - product name
 - product version (release number)
 - license number and password (trial or permanent)
- operating-system and environment information
 - machine type
 - operating system type, version, and service pack or program temporary fix (PTF)
 - system hardware configuration
 - serial numbers
 - related software (database, application, and communication) including type, version, and service pack or PTF
- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
 - product error messages
 - messages from the operating system, such as `file system full`
 - messages from related software

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About This Book

This book contains detailed information about MAINVIEW for UNIX System Services and is intended for systems analysts, systems programmers, computer operators, or anyone responsible for applying system maintenance and ensuring maximum system performance.

To use this book, you should be familiar with

- Multiple Virtual Storage (MVS) systems
- job control language (JCL)
- Interactive System Productivity Facility (ISPF)

For example, you should know how to respond to ISPF panels.

How This Book Is Organized

This book is organized as follows. In addition, a glossary of terms and an index appear at the end of the book.

Chapter/Appendix Number and Title	Description
Chapter 1, "Customizing MAINVIEW for UNIX System Services"	describes how to customize MAINVIEW for UNIX System Services
Chapter 2, "Introducing MAINVIEW for UNIX System Services"	describes the architecture and purpose of MAINVIEW for UNIX System Services, as well as how to navigate through the views
Chapter 3, "Solving Performance Problems"	describes how to begin using MAINVIEW for UNIX System Services to detect performance problems or potential problems
Chapter 4, "Controlling USS from MAINVIEW for UNIX System Services"	describes how to execute UNIX System Services (USS) commands from within MAINVIEW for UNIX System Services
Chapter 5, "Comparing Performances with Historical Data"	describes how historical data can be used to compare performances

Chapter/Appendix Number and Title	Description
Chapter 6, "Controlling Data Collectors"	describes the MAINVIEW for UNIX System Services data collectors, how they work, and how to control them
Chapter 7, "MAINVIEW Alarm Manager"	describes MAINVIEW Alarm Manager and its views
Chapter 8, "Graphing Your Data"	describes how to use the Graph Manager to display, customize, and print a chart
Chapter 9, "Before Calling Customer Support"	describes and provides solutions for common scenarios that customers might encounter
Appendix A, "Understanding View Field Terminology"	describes and defines view field terminology

Related Documentation

BMC Software products are supported by several types of documentation:

- online and printed books
- online Help
- release notes and other notices

Note: The messages that MAINVIEW for UNIX System Services generates are available online by typing **msg** followed by the message number on any MAINVIEW screen.

Online and Printed Books

The books that accompany BMC Software products are available in online format and printed format. If you are a Windows or Unix user, you can view online books with Acrobat Reader from Adobe Systems. The reader is provided at no cost, as explained in "To Access Online Books." You can also obtain additional printed books from BMC Software, as explained in "To Request Additional Printed Books."

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BMC Software provides printed books with your product order. To request additional books, go to <http://www.bmc.com/support.html>.

Online Help

The MAINVIEW for UNIX System Services product includes online Help. In the MAINVIEW for UNIX System Services ISPF interface, you can access Help by pressing **PF1** from any ISPF panel.

Release Notes and Other Notices

Printed release notes accompany each BMC Software product. Release notes provide current information such as

- updates to the installation instructions
- last-minute product information

In addition, BMC Software sometimes provides updated product information between releases (in the form of a flash or a technical bulletin, for example), and maintenance announcements accompany maintenance releases. The latest versions of the release notes and other notices are available on the Web at www.bmc.com/support.html.

Conventions

This book uses the following general conventions:

Item	Format	Example
information that you are instructed to type	bolded and in Times 10 pt. font	Type SEARCH DB in the designated field.
specific (standard) keyboard key names	bolded and in Times 10 pt. font	Press Enter .
field names, text on a panel	bolded and in Times 10 pt. font	Type the appropriate entry in the Command field.
directories, file names, Web addresses	bolded and in Times 10 pt. font	The BMC Software home page is at www.bmc.com .
nonspecific key names, option names	every letter capitalized	Use the HELP function key. KEEPDICTIONARY option
MVS calls, commands, control statements, keywords, parameters, reserved words	every letter capitalized	Use the SEARCH command to find a particular object. The product generates the SQL TABLE statement next.
code examples, syntax statements, system messages, screen text	in a Courier font	// STEPLIB DD The table <table_name> is not available.
emphasized words, new terms, variables	in italics	The instructions that you give to the software are called <i>commands</i> . In this message, the variable <i>file_name</i> represents the file that caused the error.
single-step procedures	preceded by the >> symbol	>> To enable incremental backups, type y and press Enter at the next prompt.

This book uses the following types of special text:

Note: Notes contain important information that you should consider.

Warning! Warnings alert you to situations that could cause problems, such as loss of data, if you do not follow instructions carefully.

Tip: Tips contain useful information that might improve product performance or that might make procedures easier to follow.

Chapter 1 Customizing MAINVIEW for UNIX System Services

This chapter covers information that you must know if you do not use AutoCustomization to customize MAINVIEW for UNIX System Services. It includes the following topics:

Define a User ID for the PAS (Required)	1-3
Authorize CSSLIB (Required)	1-3
Copy Members (Optional)	1-3
What's Next?	1-4

BMC Software recommends that you use AutoCustomization to customize MAINVIEW for UNIX System Services. See the *OS/390 and z/OS Installer Guide* for information about AutoCustomization.

If you decide not to use AutoCustomization, perform the following steps to customize MAINVIEW for UNIX System Services manually.

1. (Required) Complete the steps in “Chapter 7: Customizing the MAINVIEW Environment” in the *MAINVIEW[®] Common Customization Guide* for Group 2 products.
2. (Required) Define a user ID for the PAS.
3. (Required) Authorize CCSLIB.
4. (Optional) Copy members BBUTSRP0, BBUTAHS0, USSJPRCS, and BBUTSRH0.

Steps 2, 3, and 4 are explained in the following sections.

Define a User ID for the PAS (Required)

To access UNIX System Services data, the MAINVIEW for UNIX System Services PAS must have superuser authority. The PAS requires that a user ID be defined. The user ID must have an OMVS segment with UID 0. The PAS user must also have a home of /. For example:

```
UID = 0000000000  
HOME = /  
PROGRAM = /bin/false
```

Authorize CSSLIB (Required)

The UNIX Systems Services CSSLIB data set must be authorized and must be in either the system link list or the STEPLIB concatenation of the PAS startup procedure.

Copy Members (Optional)

This step copies the following members:

- BBPARM member BBUTSRP0—used to specify processes that are required to be executing. Processes specified in BBUTSRP0 can be monitored with the PESTAT view.
- BBPARM member BBUTAHS0—used to change the default processing for ad hoc request management. See “Background Processing” on page 2-9 for more information on BBUTAHS0.
- BBSAMP member USSJPRCS—contains a sample screen definition that can be used to display the ASOVERZ and PSSTAT views.
- BBPARM member BBUTSRH0—used to specify HFS files that are required to be mounted. HFS files listed in this member can be monitored for their mount characteristics using the HFSSTAT view.

To copy these members to the appropriate libraries, follow these steps:

Step 1 Copy *hilevel*.BBSAMP member UFOCOPY to your private JCL library, where *hilevel* is the high-level qualifier used for MAINVIEW for UNIX System Services data sets at your site.

UFOCOPY contains JCL to execute IEBCOPY.

Step 2 Customize the JCL by following the instructions at the top of the member.

Step 3 Submit the JCL.

Step 4 Review the job output to verify that the IEBCOPY job was successful.

What's Next?

After you have completed the manual customization for MAINVIEW for UNIX System Services, BMC Software recommends that you perform the following tasks:

1. Review the information in the *MAINVIEW[®] Administration Guide* to assist you in setting up your MAINVIEW environment.
2. Use the MAINVIEW CLIST to access MAINVIEW for UNIX System Services.

Chapter 2 Introducing MAINVIEW for UNIX System Services

MAINVIEW is a system management application that provides a wide range of services and functions to help you manage the performance of your UNIX System Services applications. Built upon BMC Software MAINVIEW architecture, MAINVIEW for UNIX System Services employs the MAINVIEW window interface to provide easy, intuitive access to all the system performance data that you need.

To use MAINVIEW for UNIX System Services to its fullest advantage, you should have a good understanding of some of the key concepts and terms that pertain to all aspects of the product.

This chapter provides background information on MAINVIEW for UNIX System Services. You can also refer to *Using MAINVIEW®* for more detailed information about the MAINVIEW architecture and interface.

This chapter includes the following topics:

MAINVIEW Organization	2-2
Activities Monitored by MAINVIEW	2-6
Displayed Information	2-10
Moving Around in MAINVIEW for UNIX System Services	2-14

MAINVIEW Organization

The BMC Software MAINVIEW organization for systems management currently supports the following products:

- MAINVIEW® for UNIX System Services
- CMF® MONITOR
- Command MQ for S/390
- IMSplex System Manager
- MAINVIEW® Alarm Manager
- MAINVIEW® Alternate Access
- MAINVIEW® Explorer
- MAINVIEW® FOCAL POINT
- MAINVIEW® for CICS
- MAINVIEW® for DB2®
- MAINVIEW® for DBCTL
- MAINVIEW® for IMS
- MAINVIEW® for MQ Series (replaces Command MQ for S/390)
- MAINVIEW® for OS/390 (replaces MAINVIEW® for MVS)
- MAINVIEW® for TCP/IP
- MAINVIEW® for VTAM
- MAINVIEW® VistaPoint™
- MAINVIEW® for WebSphere
- Plex Manager (part of MAINVIEW architecture)

Before you use MAINVIEW for UNIX System Services, it is important that you understand the MAINVIEW organization.

MAINVIEW Address Spaces

All MAINVIEW products require three address spaces:

- **Coordinating address space (CAS):**

The CAS, which runs as a subsystem, provides many services to all MAINVIEW products. For example, the CAS is responsible for managing communication with other CASs on other local and remote systems and for establishing direct communication between an individual user address space and a product address space. There is one CAS per OS/390 system image.

- **Product address space (PAS):**

A product address space provides special services to one or more related products. MAINVIEW for UNIX System Services uses the OS/390 PAS, which houses the MAINVIEW for UNIX System Services data collectors, as well as the Open Editor (OE) data gatherer. The OS/390 PAS runs as a started task.

The OE data gatherer is a component that provides the following services to data collectors and selectors:

- Keeps knowledge of UNIX System Services away from the PAS data collectors and selectors.
- Maintains currency between releases.
- Decouples data collectors and selectors from delays that are inherent in UNIX System Services.

MAINVIEW for UNIX System Services, MAINVIEW for OS/390, and CMF MONITOR Online can be either stand-alone or share the OS/390 PAS with either or both of the other two products. Additional product address spaces might exist to support other MAINVIEW products.

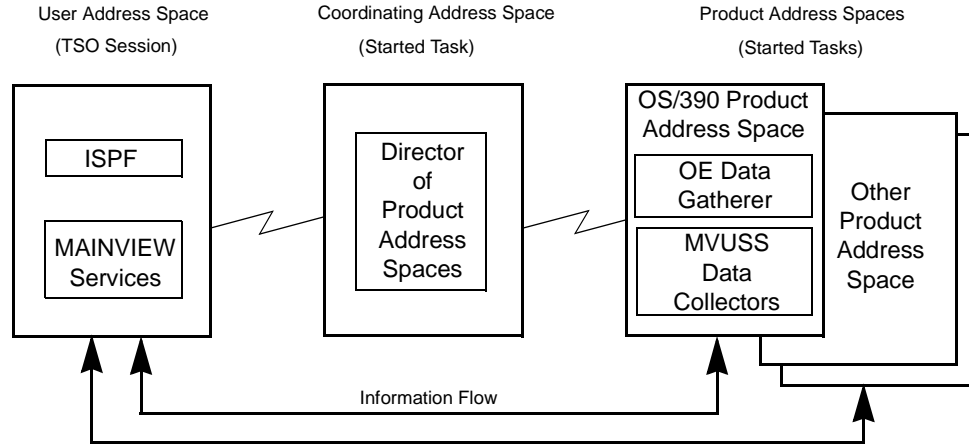
Note: Although MAINVIEW for UNIX System Services and MAINVIEW for OS/390 share the OS/390 PAS, MAINVIEW for OS/390 is not a prerequisite for MAINVIEW for UNIX System Services.

- **User address space (UAS):**

A user address space is a TSO or a MAINVIEW Alternate Access session.

The communication flow between the MAINVIEW for UNIX System Services address spaces is illustrated in Figure 2-1 on page 2-4.

Figure 2-1 Communication Flow



The OS/390 coordinating address space and the product address space are set up by your system administrator. Under most circumstances, they are automatically started at each system IPL.

Because the MAINVIEW for UNIX System Services data collectors are isolated from the CAS, you can control the two independently. This feature is especially useful if you want to run MAINVIEW for UNIX System Services only during certain periods of the day—you can stop the OS/390 product address space without stopping the CAS, thus keeping other MAINVIEW products up and running.

Controlling the Product Address Space

Use the commands listed in Table 2-1 to control the product address space and start and stop the data collectors to alter the information.

Table 2-1 PAS Modify Commands

Command	Action
DC=START	starts all of the MAINVIEW for UNIX System Services, MAINVIEW for OS/390, and CMF MONITOR data collectors at the same time
DC=STOP	stops all of the MAINVIEW for UNIX System Services, MAINVIEW for OS/390, and CMF MONITOR data collectors at the same time
DCSTAT view	starts or stops individual MAINVIEW for UNIX System Services data collectors
DC=REFRUID	refreshes the UID cache to incorporate any changes made to the security database
DC=REFRGID	refreshes the GID cache to incorporate any changes made to the security database

For more information on these commands and controlling the product address space, refer to Chapter 6, “Controlling Data Collectors.”

MAINVIEW Window Interface

Each product in the MAINVIEW family takes full advantage of the BMC Software MAINVIEW window interface, a robust, easy-to-use extension of the standard ISPF interface. With the MAINVIEW window interface, you can use multiple products to control and monitor multiple resources on multiple systems, all on just one screen. During MAINVIEW sessions, you can use standard ISPF features, such as scrolling and screen swaps, to help navigate MAINVIEW menus and views.

Activities Monitored by MAINVIEW

MAINVIEW for UNIX System Services monitors a wide variety of processes and resources on your UNIX System Services system.

The features monitored include

- MVS address spaces that have been dubbed as MVS-OE address spaces
- processes/threads that are running in those address spaces and details about those processes/threads
- files open for a process
- summary information for mounted file systems
- IPC realtime activity
- detailed file information, including size, owner, and file permissions
- HFS global buffer information and file system statistics
- address space information, including usage and delays
- users logged in to UNIX System Services
- system parameters in BPXPRMxx

These activities are categorized into one of the following groups.

Processes

As you can see from the bulleted list, MAINVIEW for UNIX System Services allows you to monitor the process activities associated with your UNIX System Services.

Process activity that is monitored includes the current status, any delays, and resource usage. You can obtain information about a single process or access a summary of all active processes.

Threads

Information about active threads for a given process is also available in the THREADS view. To see the THREADS view, you can hyperlink from PSOVER as well as from the threads popup view from the Process/Thread action on EZUPRC.

File Systems and File Information

MAINVIEW for UNIX System Services provides detailed information about all file systems, including specific data about individual files, which file systems are currently mounted, and the full directory names of the files. In addition, MAINVIEW for UNIX System Services displays information about storage allocation, I/O statistics, and index event data for HFS file systems.

System Information

You can track address space usage, delays, and activity through the address space views provided by MAINVIEW for UNIX System Services. You can also access MAINVIEW for UNIX System Services views to obtain information about the UNIX System Services parameter settings (SYS1.PARMLIB member BPXPRMxx).

User Information

MAINVIEW for UNIX System Services includes a series of user views where you can determine such things as the length of time a user has been logged in for a single session and the number of processes a user has running.

IPC Realtime Activity

MAINVIEW for UNIX System Services includes a series of views to show realtime interprocess communication activity. You can access the views from the EZUSS or EZFAST menu.

Threshold Alarms

MAINVIEW Alarm Manager enables your site to set thresholds for important indicators. It also allows you to trigger alarms, based on thresholds, and then the Alarm Manager sends the alarms to the ALARM view or to the AutoOPERATOR or to both. For details, see Chapter 7, “MAINVIEW Alarm Manager.”

System-Monitored Intervals

Although MAINVIEW for UNIX System Services continually gathers and stores information on processes, file systems, address spaces, parameters, and users, you control when and how often that information is displayed.

MAINVIEW for UNIX System Services allows you to display data in various intervals:

- Ad hoc views display information as it exists at the moment of inquiry.
- Interval views display all the information since the completion of the last full interval.
- Summary views display summarized information over multiple intervals requested with the **TIME** command.

Historical Data

MAINVIEW for UNIX System Services also allows you to re-create the operating environment as it existed during a previous time period. This feature, called the Historical Database, stores information on your operating environment at the end of each interval so you can compare the current performance with a previous performance. This comparison allows you to determine whether your system is working normally.

For information on using Historical Data, see Chapter 4 “Controlling USS from MAINVIEW for UNIX System Services,” or type **HELP TIME** on any MAINVIEW **COMMAND** line.

Background Processing

When you request ad hoc views (FSPACE, PSFOPEN, and PSTREE), MAINVIEW for UNIX System Services waits only briefly for a response. If the response is not timely, the REQSTAT view appears and the Status field indicates the status of the request. You can proceed with other work as your request continues processing. You can refer to REQSTAT to view the status of your request until it is completed, or you purge the request if the information is no longer needed.

By default, only the 25 most recent ad hoc data requests are retained. When a new ad hoc view is invoked, a new ad hoc data request is made and, if 25 requests are already being retained, the oldest request is automatically purged.

If you need to exempt a request from the automatic purge process, you can use the H line command on the REQSTAT view to hold the request. (Held requests are not automatically purged.) This feature allows you to issue a number of requests to gather the same data and then compare the information. For example, you might want to compare file space information gathered at different times. The S line command on the REQSTAT view permits you to view previously gathered ad hoc data.

It is possible to change the default processing for ad hoc request management by changing the specifications in the BBUTAHS0 parmlib member. You can change the number of requests retained by the automatic purge process to something other than 25, and you can specify which users are subject to automatic purge processing and the receipt of pop-up notifications. Users whose requests are not subject to automatic purge processing must manage their ad hoc data explicitly by manually purging their requests using the P line command on the REQSTAT view. However, failure to control the amount of storage used to retain ad hoc requests can lead to a shortage of resources in the PAS.

Displayed Information

MAINVIEW for UNIX System Services displays the information it gathers in a view. Data on a particular topic is presented in tabular form (rows and columns). When a view is selected for display, a query is executed against the data collected by MAINVIEW for UNIX System Services to retrieve the relevant information. The data is formatted according to the associated set of instructions for the selected view.

With MAINVIEW for UNIX System Services, you can change a view's form without affecting its underlying query. The information you have requested is the same, but it is presented in a different format. For information on how to change the form, type **HELP FORM** on any MAINVIEW **COMMAND** line.

Understanding the MAINVIEW Window Interface

All MAINVIEW products use the MAINVIEW window interface or the MAINVIEW standard ISPF panel interface (or a combination of both). MAINVIEW for UNIX System Services operates primarily in the window environment.

In the MAINVIEW window environment, each view is displayed in its own *window*. The top row of each window, called a *window information line*, tells you, among other things, the number and status of the window; the name of the view; the system, date, and time reflected by the view; and the name of the MAINVIEW product that you are currently using. A typical window information line looks like this:

```
>W1  =PSOVERZ=====DXTSTJ=====15MAR2002====16:53:58====MVUSS====D===20
```

Everything below this line is called the *display area*. The top three lines of the MAINVIEW window interface are called the *window control area*. The control area consists of the following lines and fields:

- Information Display line (which contains the current date and time)
- COMMAND line
- SCROLL field
- CURR WIN (current window) field
- ALT WIN (alternate window) field

The window information line displays a lot of information; however, its exact appearance depends on many factors. For information about any of these fields, place the cursor on the field and press **PF1** (HELP). The window information line and its fields are also discussed in detail in Chapter 3 of *MAINVIEW® for UNIX System Services Getting Started*.

Understanding View Categories

There are five kinds of views available in MAINVIEW products:

- Menu views

Menu views allow you to hyperlink to other views. Some menus hyperlink to views that display information about your system; other menus hyperlink to more specific views or menus that allow you to focus on the information you need.

- Tabular views

Tabular views are rows and columns of data. Each field in a given row addresses the same process, file system, or user ID. Most views are tabular.

- Detail views

Detail views provide detailed information on a particular process, file system, or resource. Although detail views might resemble tabular views, the fields in a detail view are actually completely independent from one another. PSINFO, FSINFO, and HFSINFO are all detail views.

- Summary views

Summary views compress several rows of data into a single row based on certain criteria. For example, a summary view focusing on process activity within a process group might compress the process records so that each process group is represented by a single row of data. All summary views are created from tabular views using a view customization option called **GROUP BY**. For more information, on the **COMMAND** line type **HELP CUSTOM**, and then select the **GROUP BY** option.

- Detail summary views

Detail summary views provide detailed information for a single resource, similar to detail views. However, the information might be summarized for one or more subresources and, possibly, multiple intervals. For instance, ASINFOZ is a detail summary view that displays summarized process statistics for a single address space. If multiple intervals have been requested (using the **TIME** command), the statistics are summarized over multiple intervals.

MAINVIEW for UNIX System Services provides views that are divided into the following categories:

- Process views, which monitor process resource usage and delay
- File system views, which provide overviews and detailed statistics for HFS file systems, as well as standard file systems
- System views, which provide information about address space usage and delays, as well as UNIX System Services parameter settings (SYS1.PARMLIB member BPXPRM_{xx})
- User views, which organize process activity by the group ID or user ID and display the currently idle users

Customizing Views and Help Text to Meet Your Needs

One of the primary advantages of the MAINVIEW for UNIX System Services window interface is the ability to customize all views and help text to meet the particular needs of your installation.

Note: EZ Menus, such as EZUSS, cannot be customized.

- **View Customization**

With the MAINVIEW view customization facility, you can organize your data in multiple ways. For example, you can

- sort on multiple columns
- rearrange columns
- graph the data
- modify the view so that certain columns are completely hidden, thus displaying only the data you need

You enter the view customization facility by typing **CUSTom** on the **COMMAND** line.

- **Help Text Customization**

To create your own help text, see the *MAINVIEW Administration Guide*. You can store this help text in your own private help text library or make it accessible to all MAINVIEW for UNIX System Services users at your site.

Getting Help on Views

MAINVIEW views are virtually self-documenting—no matter how you customize a view using the CUSTom command, the online help always draws from the most current information and is always accurate.

The different types of online help available are described in Table 2-2.

Table 2-2 Online Help Available for MAINVIEW Products

To Display This	Do This
Help on a view	Place the cursor on the view name on the window information line and press PF1 . Alternatively, on the COMMAND line, type HELP <viewname>. View help displays other topics that tell you which parameters are currently in effect, which fields are included and excluded within the view, which fields have hyperlinks and to where, and so on.
Help on a field that appears on a view	Place the cursor on the field and press PF1 .
Help on a field on the window information line	Place the cursor on the field and press PF1 .
Help on a command or topic pertaining to the MAINVIEW window interface itself	On the COMMAND line, type HELP <topic id>, where <i>topic id</i> is the ID of the topic as listed in the <i>MAINVIEW Command List</i> . (For example, typing HELP ASU gives you help on the ASU command.) Alternatively, place the cursor on the COMMAND line and press PF1 to display the MAINVIEW help tutorial. Select either Beginning or Advanced topics, or type INDEX to display all the available topics.

Moving Around in MAINVIEW for UNIX System Services

MAINVIEW for UNIX System Services displays the information it collects in the form of views—one view for each type of activity, area of interest, and time frame.

There are three methods of displaying these views and the rest of the services provided by MAINVIEW for UNIX System Services:

- hyperlinks
- menus
- commands

Using Hyperlinks

A hyperlink is a link from a field in a view to another view or a command. When you place your cursor on a field for which a hyperlink exists and press **Enter**, the underlying command is executed and its output is displayed.

Fields with hyperlink properties appear in a different color on your terminal. On monochrome terminals, hyperlinked fields appear in bold.

Every MAINVIEW window interface product allows you to develop your own hyperlinks, which will save time and steps when going from one view to another. For instructions on overriding the default hyperlinks and creating your own, type **HELP HYPERLINK** on the **COMMAND** line.

Figure 2-2 on page 2-15 demonstrates using a hyperlink for the PSOVERZ view.

Figure 2-2 PSOVERZ View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>H1 =PSOVERZ=====SJSC=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D==64
C  ProcessId Command  Elapsed  Jobname  Multi-  Total  Total  Total  Total  Sys Cal
-  -----  Name      ProcTime  -----  Thread  Dly%   Run%   Zomb%   Othr%      Rat
1  BPXPINPR  13:00:14  BPXOINIT  Yes     100.0   0.00   0.00   0.00   0.0041
6  inetd     12:59:52  INETD4    No      100.0   0.00   0.00   0.00   0.0000
8  EZBTCPIP  12:59:34  DC$TCPIP  Yes     0.00  100.0   0.00   0.00   0.0000
9  GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
10 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
11 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
12 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
13 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
14 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
15 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
16 GFSCRPCD  12:59:27  DC$NFSC   No      0.00   0.00   0.00  100.0   0.0000
17 EZBTSSL  12:59:26  DC$TCPIP  No      0.00  100.0   0.00   0.00   0.0000
18 EZBTMCTL 12:59:26  DC$TCPIP  No      0.00  100.0   0.00   0.00   0.0000
19 EZACFALG 12:59:26  DC$TCPIP  No     100.0   0.00   0.00   0.00   0.0125
21 EZASASUB 12:59:24  DC$TCPIP  No     100.0   0.00   0.00   0.00   0.0251
23 FTPD     12:59:22  DC$FTSRV  Yes     100.0   0.00   0.00   0.00   0.0000

```

When you look at PSOVERZ, you see that total delay percentage is exceptionally high for several processes, including BPXOINIT.

To investigate why the usage is so high for BPXOINIT, split the screen to display two windows at once:

Step 1 On the **COMMAND** line, type **HSplit**.

HSplit indicates that the screen will be split horizontally into two windows.

Step 2 Move your cursor down to the position at which you want the next window to begin.

Step 3 Press **Enter**.

Your screen is now divided, as shown in Figure 2-3 on page 2-16.

Figure 2-3 Splitting the Screen

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 2          ALT WIN ==>
>H1 -PSOVERZ-----SJSC-----*-----DDMMYYYY--HH:MM:SS---MVUSS---D---64
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- ----- Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
      1 BPXPINPR 13:00:14 BPXOINIT Yes    100.0  0.00  0.00  0.00  0.0041
      6 inetd    12:59:52 INETD4   No     100.0  0.00  0.00  0.00  0.0000
      8 EZBTCPIP 12:59:34 DC$TCPIP Yes     0.00 100.0  0.00  0.00  0.0000
      9 GFSCRPCD 12:59:27 DC$NFSC  No     0.00  0.00  0.00 100.0  0.0000
     10 GFSCRPCD 12:59:27 DC$NFSC  No     0.00  0.00  0.00 100.0  0.0000
     11 GFSCRPCD 12:59:27 DC$NFSC  No     0.00  0.00  0.00 100.0  0.0000
T2 =====

```

The empty space at the bottom of the screen will be replaced with the PSDELAYZ view when you hyperlink there.

To execute the hyperlink for the **Total Dly%** field:

Step 4 Set the ALT WIN value to **2**.

This action directs the output to window 2.

Step 5 Place the cursor on the value in the **Total Dly%** field for the process with the Command Name BPXPINPR.

Step 6 Press **Enter**.

Your screen now displays PSOVERZ in the top half and PSDELAYZ in the bottom half, as shown in Figure 2-4 on page 2-17.

Figure 2-4 Using a Split Screen with a Hyperlink

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 2          ALT WIN ==>
+W1 -PSOVERZ-----SJSC-----*-----DDMMYYYY--HH:MM:SS---MVUSS---D---64
C  ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
-  ----- Name      ProcTime ----- Thread Dly% Run% Zomb% Othr%      Rat
      1 BPXPINPR 13:00:14 BPXOINIT Yes      100.0  0.00  0.00  0.00  0.0041
      6 inetd    12:59:52 INETD4   No       100.0  0.00  0.00  0.00  0.0000
      8 EZBTCPIP 12:59:34 DC$TCPIP Yes       0.00 100.0  0.00  0.00  0.0000
      9 GFSCRPCD 12:59:27 DC$NFSC  No       0.00  0.00  0.00 100.0  0.0000
     10 GFSCRPCD 12:59:27 DC$NFSC  No       0.00  0.00  0.00 100.0  0.0000
     11 GFSCRPCD 12:59:27 DC$NFSC  No       0.00  0.00  0.00 100.0  0.0000
>W2 =PSDELAYZ=====CXTSTK=====DDMMYYYY==HH:MM:SS===MVUSS===D===1
C  ProcessId Command Elapsed Jobname      Total Delay % Total Total %Delay
-  ----- Name      ProcTime -----      0....50...100 Zomb% Othr% MsgRcv
      1 BPXPINPR 13:22:18 BPXOINIT    0.00              0.00  0.00  0.00

```

You can continue to hyperlink to other views to gather additional information. You can either open them in new windows or replace the views in windows 1 and 2.

Using Easy Menus

An easy menu consists of a series of options that allows you to hyperlink to either data views or to other easy menus related to that particular option. All easy menus begin with the letters EZ. With these menus, you can locate specific information you are interested in without having to know the name of the view that contains the information.

EZUSS, shown in Figure 2-5, is the primary easy menu for MAINVIEW for UNIX System Services.

Figure 2-5 EZUSS Menu

```
DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND    ==>                                           SCROLL ==> CSR
CURR WIN   ==> 1      ALT WIN ==>
W1 =EZUSS=====EUSM=====*=====DDMMYYYY==HH:MM:SS====MVUSS====D====1

                                MVUSS Easy Menu

Activity                                     Utilities
> System                                +-----+ > Alarm Management
> Processes                            | Place cursor on | > MAINVIEW Environment
> Filesystems                         | menu item and  | > MVUSS Fast Menu
> Users                              | press ENTER   |
. USS Address Spaces                  +-----+ . Return...
. IPC Realtime Activity

Action Views
> EZ Action Menu
```

From EZUSS, you can hyperlink to a series of other easy menus that lead to specific views and data.

For example, hyperlink from the Processes option on the EZUSS menu to display EZUPRCS, the easy menu for processes, shown in Figure 2-6.

Figure 2-6 EZUPRCS Menu

```
DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND    ==>                                           SCROLL ==> PAGE
CURR WIN   ==> 1      ALT WIN ==>
W1 =EZUPRCS=====SJSC=====*=====DDMMYYYY==HH:MM:SS====MVUSS====D====1

                                Processes Easy Menu

Activity                                     General
. Overview                                +-----+ . Current Status
. Resource Usage                         | Place cursor on | . Command Name
. Delays                               | menu item and  | . Process Tree
. Execution State                       | press ENTER   |
                                        +-----+ . Return...
```

From EZUPRCS, you can access the process views and monitor the resource utilization, delays, and overall performance of a process.

Using Commands

To display a view using commands, type the view name or command on the **COMMAND** line.

Note: To see what MAINVIEW window interface commands are available, see the *MAINVIEW® Quick Reference*.

You can also filter data by specifying parameters with your view commands.

For example, to display the PSOVERZ view with only processes whose Command Names start with EZB, type **PSOVERZ EZB***, using the wildcard character ***** to represent any characters following EZB.

The output is displayed in Figure 2-7.

Figure 2-7 PSOVERZ Processes with EZB* Command Names

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =PSOVERZ=====SJSE=====*=*****DDMMYYYY==HH:MM:SS====MVUSS====D====4
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- ----- Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
  2 EZBTCPIP 54:28:25 DC$TCPIP Yes 0.00 100.0 0.00 0.00 0.0000
  3 EZBTSSL 54:28:18 DC$TCPIP No 0.00 100.0 0.00 0.00 0.0000
  4 EZBTMCTL 54:28:17 DC$TCPIP No 0.00 100.0 0.00 0.00 0.0000
  7 EZBTMST 54:28:13 DC$TCPIP No 0.00 100.0 0.00 0.00 0.0000
```

Displaying Multiple Views Simultaneously

While using commands to display views, you can also display multiple views at the same time. This feature is helpful when you are trying to diagnose a problem by comparing two views.

To display multiple views, follow these instructions:

Step 1 On the **COMMAND** line, type the name of the view you want to display.

Step 2 On the **COMMAND** line, type **HS** for horizontal split.

Note: Do not press **Enter** yet.

Step 3 Move the cursor about halfway down the current view to where you would like the top of the second view to appear.

Step 4 Press **Enter**.

MAINVIEW for UNIX System Services sets the **CURRENT WINDOW** field to 2.

Step 5 On the **COMMAND** line, type the name of another view.

Step 6 Press **Enter**.

The two views now appear simultaneously.

When issuing a command with multiple views open, make sure the number in the **CURRENT WINDOW** field reflects the number of the target view for that command.

If you have multiple windows open, you can use a shortcut similar to the one described above to enter multiple views and parameters at one time. Use the ISPF delimiter (usually a semicolon) as shown in the next example.

Type the following command:

psuse;next;psstat

You have instructed that PSUSE appear in the top half of the screen and PSSTAT appear in the bottom half of the screen.

Figure 2-8 ISPF Delimiter

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 2          ALT WIN ==>
>W1 -PSUSE-----SJSC-----*-----DDMMYYYY--HH:MM:SS---MVUSS---D---64
C  ProcessId Command Elapsed Jobname Running % Sys Call Interval#
- ----- Name ProcTime ----- 0...50...100 Rate Sys Calls
      8 EZBTCPIP 13:31:25 DC$TCPIP 100.0 0.00000 0
     17 EZBTSSL 13:31:17 DC$TCPIP 100.0 0.00000 0
     18 EZBTMCTL 13:31:17 DC$TCPIP 100.0 0.00000 0
     25 GFSAMAIN 13:31:10 DC$NFS 100.0 0.00000 0
     28 BBM9SZ20 13:31:07 DC$PAS 100.0 3.76866 2209
     29 EZBTMST 13:31:04 DC$TCPIP 100.0 2.66314 1561
     46 TCPMOMVS 02:28:29 XTSTIPAS 100.0 0.99463 583
>W2 =PSSTAT=====SJSC=====*=====DDMMYYYY==HH:MM:SS===MVUSS===D===64
C  ProcessId Command Elapsed Jobname P Kernel Status MVS Proc
- ----- Name ProcTime ----- S ----- Status Stop
      1 BPXPINPR 13:32:35 BPXOINIT F File System kernel wait SWAPPED No
      6 inetd 13:32:13 INETD4 F File System kernel wait SWAPPED No
      8 EZBTCPIP 13:31:55 DC$TCPIP R Not waiting for kernel No
      9 GFSCRPCD 13:31:48 DC$NFSC A IPC Message Receive wait No
     10 GFSCRPCD 13:31:48 DC$NFSC A IPC Message Receive wait No
     11 GFSCRPCD 13:31:48 DC$NFSC A IPC Message Receive wait No

```

Using View Parameters

Most views have been defined with a set of parameters that can be used to filter the view. Use the view help information to discover the parameters defined to a specific view.

Determining Positional Parameters

When you use positional parameters, you supply values for the parameters in a predetermined order.

To determine the parameters and their order for a given view, follow these steps:

- Step 1** Display the view's online help by placing the cursor on the view name and pressing **PF1**.

In the example displayed in Figure 2-9 on page 2-22, the view name is **PSOVER**.

```
DDMMYYYY      HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS =====D====64
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>H1 =PSOVER=====SJSC=====*=*****=DDMMYYYY==HH:MM:SS====MVUSS====D====64
C   ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
-   - Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
    1 BPX +-----+-----+-----+-----+-----+-----+ 0.0041
    6 ine | Help Interval Process Activity Help | 0.0000
    8 EZB | Command ==> Scroll ==> CSR | 0.0000
    9 GFS | monitor process activity during an interval. | 0.0000
   15 GFS | | 0.0000
   16 GFS | For more information on this view, place the | 0.0000
   17 EZB | cursor on one of the following topics and press | 0.0000
   18 EZB | ENTER. | 0.0000
   19 EZA | | 0.0125
   21 EZA | o Actions available from this view | 0.0251
   23 FTP | | 0.0000
   36 CSQ | o Elements in this view | 0.0000
   37 CSQ | | 0.0000
   38 CSQ | o Positional parameters | 0.0000
   39 CSQ | | 0.0000
   40 CSQ | o Keyword parameters | 0.0000
   74 OPU | | 0.0000
  135 BBM | o Forms that are valid for this view | 2.3846
  147 OPU | | 0.0000
  194 TCP | o Sort information | 0.0240
  226 OPU | | 0.0000
  233 OPU | PSOVER is a TABULAR view. | 0.0000
  245 SML +-----+-----+-----+-----+-----+-----+ 0.0000
```

Step 2 Place the cursor on the **Positional parameters** field and press **Enter**.

The positional parameters are displayed, as shown in Figure 2-10 on page 2-23.

Figure 2-10 PSOVER View Positional Parameters

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>H1 =PSOVER=====SJSC=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D==64
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- ----- Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
1 BPX +-----+ 0.0041
6 ine | +-----+ 0000
8 EZB | | Help Positional Parameters Help | 0000
9 GFS | | Command ==> Scroll ==> CSR | 0000
15 GFS | | ----- | 0000
16 GFS | | The positional parameters for this view are: | 0000
17 EZB | | | 0000
18 EZB | | Filter Condition: Column Header: | 0000
19 EZA | | | 0125
21 EZA | | E = * Command / Name | 0251
23 FTP | | | 0000
36 CSQ | | G = * Jobname | 0000
37 CSQ | | | 0000
38 CSQ | | For more information on using positional | 0000
39 CSQ +-| parameters, see the positional parameters topic. | 0000
40 CSQ +-----+ 0000

```

Figure 2-10 shows that the positional parameters are Command / Name and Jobname. You can use this information to modify your views and show only specific data.

Step 3 To return to the main window, press **PF3** twice.

Step 4 On the **COMMAND** line, type **PARm * DC***.

This command changes the view to show only the requested information without refreshing the data. Figure 2-11 on page 2-24 shows only those processes whose jobnames start with DC.

Figure 2-11 Filtering with Positional Parameters

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==> SCROLL ==> CSR
CURR WIN ==> 1 ALT WIN ==>
>W1 =PSOVER=====SJSE=====DDMMYYYY==HH:MM:SS3===MVUSS===D====9
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- ----- Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
      2 EZBTCPIP 54:31:12 DC$TCPIP Yes      0.00 100.0  0.00  0.00  0.0000
      3 EZBTSSL 54:31:05 DC$TCPIP No       0.00 100.0  0.00  0.00  0.0000
      4 EZBTMCTL 54:31:04 DC$TCPIP No       0.00 100.0  0.00  0.00  0.0000
      5 EZACFALG 54:31:04 DC$TCPIP No      100.0  0.00  0.00  0.00  0.0280
      6 EZASASUB 54:31:03 DC$TCPIP No      100.0  0.00  0.00  0.00  0.0249
      7 EZBTMST 54:31:00 DC$TCPIP No       0.00 100.0  0.00  0.00  0.0000
      9 FTPD 54:30:58 DC$FTSRV No      100.0  0.00  0.00  0.00  0.0000
     10 PORTMAP 54:30:54 DC$PMAP No      100.0  0.00  0.00  0.00  0.0311
    16777227 BBM9SZ20 54:30:21 DC$PAS Yes      0.00 100.0  0.00  0.00  1.1427
```

Even though Jobname is the fifth column, it is the second parameter.

When you specify a value for any view parameter other than the first parameter, all preceding parameters must be accounted for by the wildcard character, * (asterisk). In the example, in Figure 2-11, you filtered the view by the Jobname, so you placed an asterisk in the command to account for the Command Name parameter. This wildcard does not affect the output but serves as a placeholder so that you can use the positional parameters correctly.

Using Keyword Parameters

A keyword parameter is the element name of a column. An element name is the name by which MAINVIEW for UNIX System Services refers to a column internally. You can use the keyword parameter to achieve the same result as using the positional parameter.

To determine the keyword parameters, follow these steps:

- Step 1** Display PSOVER's online help by placing the cursor on the view name and pressing **PF1**. (See Figure 2-12.)

Figure 2-12 PSOVER View Online Help

```
DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
>H1 =PSOVER=====SJC=====*=====DDMMYYYY==HH:MM:SS====MVUSS====D==64
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- - - - - Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
1 BPX +-----+
6 ine | Help          Interval Process Activity          Help | 0.0000
8 EZB | Command ==>          Scroll ==> CSR | 0.0000
9 GFS | monitor process activity during an interval. | 0.0000
15 GFS | | 0.0000
16 GFS | For more information on this view, place the | 0.0000
17 EZB | cursor on one of the following topics and press | 0.0000
18 EZB | ENTER. | 0.0000
19 EZA | | 0.0125
21 EZA | o Actions available from this view | 0.0251
23 FTP | | 0.0000
36 CSQ | o Elements in this view | 0.0000
37 CSQ | | 0.0000
38 CSQ | o Positional parameters | 0.0000
39 CSQ | | 0.0000
40 CSQ | o Keyword parameters | 0.0000
74 OPU | | 0.0000
135 BBM | o Forms that are valid for this view | 2.3846
147 OPU | | 0.0000
194 TCP | o Sort information | 0.0240
226 OPU | | 0.0000
233 OPU | PSOVER is a TABULAR view. | 0.0000
245 SML +-----+ 0.0000
```

- Step 2** Place your cursor on the **Keyword parameter** field and press **Enter**.

The keyword parameters are displayed, as shown in Figure 2-13 on page 2-26.

Figure 2-13 PSOVER View Keyword Parameters

```
DDMMYYYY HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>W1 =PSOVER=====SJSC=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D==64
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- - - - - Name ProcTime - - - - - Thread Dly% Run% Zomb% Othr% Rat
1 BPX +-----+ 0.0041
6 ine | +-----+ .0000
8 EZB | | Help Keyword Parameters Help | .0000
9 GFS | | Command ==> Scroll ==> CSR | .0000
10 GFS | | ----- .0000
11 GFS | | .0000
12 GFS | | The keyword parameters for this view are: | .0000
13 GFS | | .0000
14 GFS | | Filter Condition: Keyword: | .0000
15 GFS | | .0000
16 GFS | | E = '*' P3GCMDN | .0000
17 EZB | | .0000
18 EZB | | G = 'DC*' PRGJOBN | .0000
19 EZA | | .0125
21 EZA | Any element may be used as a keyword parameter as | .0251
23 FTP | long as it has a filter. Use the WHERE command or | .0000
24 POR + | the L - Filter option in view customization to set | .0000
38 CSQ | a filter when necessary. | .0000
39 CSQ | | .0000
40 CSQ | For more information on using keyword parameters, | .0000
74 OPU | see the keyword parameters topic. | .0000
135 BBM +-----+ .3846
```

Figure 2-13 shows that the keyword parameter for Jobname is PRGJOBN. In addition to typing **PARm * DC***, you could also type

PARm PRGJOBN (DC*)

to display the same data.

Using the PARm Command

Since the view was already displayed, you used the PARm command in place of the view name to supply new parameters. PARm is much faster than using the view names because the PARm command places a filter on the existing data, rather than engaging the data collectors to gather new data.

PARm works for both positional and keyword parameters.

Chapter 3 Solving Performance Problems

MAINVIEW for UNIX System Services is designed to detect performance problems or potential problems of UNIX System Services and take corrective action to resolve the issues. MAINVIEW easy menus allow you to easily access any MAINVIEW for UNIX System Services view without knowing the view name. Once you access a view, you can obtain more detailed information regarding UNIX System Services. If you notice a potential problem in the data, you can use historical data to compare the current data to previous data to determine if there is really a problem.

This chapter includes the following topics:

Using MAINVIEW Easy Menus	3-2
Using MAINVIEW for UNIX System Services Views	3-10

Using MAINVIEW Easy Menus

MAINVIEW for UNIX System Services provides a set of easy menus that allow you to use the product without having to remember all the view names.

MAINVIEW for UNIX System Services Easy Menu

EZUSS, shown in Figure 3-1, is the primary easy menu for MAINVIEW for UNIX System Services. The selections on this menu allow you to access other high-level easy menus, such as EZUPRCS and EZUFSYS, to quickly locate information about various activities.

Figure 3-1 EZUSS Menu

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm)MVUSS -----
COMMAND ==>                                     SCROLL ==> CSR
CURR WIN ==> 1          ALT WIN ==>
W1 =EZUSS=====EUSM=====*=====DDMMYYYY=HH:MM:SS====MVUSS====D====1

                                MVUSS Easy Menu

    Activity                                Utilities
> System                                +-----+ > Alarm Management
> Processes                            | Place cursor on | > MAINVIEW Environment
> Filesystems                          | menu item and   | > MVUSS Fast Menu
> Users                               | press ENTER    |
. USS Address Spaces                   +-----+ . Return...
. IPC Realtime Activity

    Action Views
> EZ Action Menu

```

Options on this menu are grouped into two categories:

- Activity options

Activity options display submenus that give you an overview of some aspect of your system's performance. From these overview submenus, you can selectively display information about a particular element by hyperlinking to a menu specific to the element.

- Utilities options

Utilities options display submenus from which you can access a broad variety of information.

The MAINVIEW for UNIX System Services easy menu options are described in the following pages.

System Overview

From the EZUSS menu, select the System option to view the EZUSYS menu. The EZUSYS menu provides options that hyperlink to views regarding key performance areas of your system, as shown in Figure 3-2.

Figure 3-2 EZUSYS Menu

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ===>                                SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
W1 =EZUSYS=====SJSC=====*=====DDMMYYYY=HH:MM:SS===MVUSS===D===1

                        System Easy Menu

Parameters                                USS Address Space
. System Parameters          +-----+ . Overview
. IPCS System Parameters    | Place cursor on | . Delays
                           | menu item and   |
                           | press ENTER    |
                           +-----+ . Return...
```

From EZUSYS, you can hyperlink to information regarding your system parameters and the MAINVIEW for UNIX System Services address space overview and delays.

Processes

Hyperlink from the Processes option of the EZUSS menu to access the Processes Easy Menu, EZUPRCS. EZUPRCS allows you to hyperlink to views that contain data regarding process activity. See Figure 3-3.

Figure 3-3 EZUPRCS Menu

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ===>                                SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
W1 =EZUPRCS=====SJSC=====*=====DDMMYYYY=HH:MM:SS===MVUSS===D===1

                        Processes Easy Menu

Activity                                General
. Overview          +-----+ . Current Status
. Resource Usage    | Place cursor on | . Command Name
. Delays            | menu item and   | . Process Tree
. Execution State   | press ENTER    |
                   +-----+ . Return...
```

EZUPRCS is divided into activity information and general information. The activity options lead you to information about specific process activity, including resource usage and delays. The general options provide more general information about a process, including the current status and command associated with that process.

File Systems

The file system menu, EZUFSYS, provides detailed information about all file systems, including HFS file systems, as shown in Figure 3-4.

Figure 3-4 EZUFSYS Menu

```

DDMMYYYY  HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =EZUFSYS=====SJSE=====DDMMYYYY==HH:MM:SS==MVUSS==D==1
      Filesystems Easy Menu

      All Filesystems
      . All Mounted Filesys
      . Directory Listing

      +-----+
      | Place cursor on |
      | menu item and   |
      | press ENTER    |
      +-----+

      HFS Filesystems
      . Overview
      . I/O Activity
      . Req'd HFS Files
      . Return...

      HFS Global Data
      . Detail
      . Buffer Usage
      . HFS Data Spaces

```

EZUFSYS is divided into information about all

- mounted file systems

Data about all mounted file systems includes mount information and directory listings.

- HFS file systems

HFS file system information includes space utilization, I/O activity, and any required HFS files that are not mounted.

- HFS global buffers

HFS global buffer data shows the global buffer usage. If you have MV390, you can hyperlink to see the data space view for global buffers.

Users

The User Activity Easy Menu, EZUUSRS, contains hyperlinks to detailed information regarding individual users, group activities, and the number of idle users, as shown in Figure 3-5.

Figure 3-5 EZUUSRS Menu

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =EZUUSRS=====SJSC=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D==1
      User Activity Easy Menu

      Activity
      . User Summary          +-----+
      . Group Summary         | Place cursor on |
                              | menu item and   |
                              | press ENTER     |
      . Return...             +-----+

```

Realtime Activity

The IPC Realtime Activity view, IPCOVER, shown in Figure 3-6 on page 3-6, contains a detailed view of the IPC message activity, semaphore activity, and shared memory activity. If any activity exists, you can obtain more information by hyperlinking on

IPC Type Message Qs	— Hyperlinks to IPCMSGR
IPC Type Semaphores	— Hyperlinks to IPCSEMR
IPC Type Shared Mem	— Hyperlinks to IPCSHMR

Figure 3-6 IPCOVER View

```

DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ===>                                SCROLL ===>  CSR
CURR WIN  ===> 1          ALT WIN  ===>
W1 =IPCOVER=====SJSE=====*=====DDMMYYYY==HH:MM:SS==MVUSS===D===1

IPC Type..... Message Qs IPC Type..... Semaphores IPC Type..... Shared Mem
MSQs Allowed..      20000 SEMs Allowed..      500 SHMs Allowed..      500
MSQs Cur Max..       6 SEMs Cur Max..          SHMs Cur Max..
MSQs in use...       6 SEMs in use...          0 SHMs in use...      0
MSQs PRIVATE..       5 SEMs PRIVATE..          SHMs PRIVATE..
MSQs KEYed....       1 SEMs KEYed....          SHMs KEYed....
MSGGET Denied..      SEMGET Denied..          SHMGET Denied..
MAX Bytes/Que..    262144 MAX SEMs/Set..      25 MAX Pag/SysLmt    262144
MAX Msg/Que...     10000 MAX Ops/SEMOP..      25 MAX Pag/SegLmt    4096
MSGSNDS ENOMEM          Storage Limit. 100000000 MAX Pag/PrcLmt    10
                               Storage Count.          Cur Bytes Sys.
                               Largest Seg...

```

USS Address Spaces

USS Address Spaces is a hyperlink from EZUSS to ASOVERZ. ASOVERZ, shown in Figure 3-7, is a summarized view that displays process statistics summarized by the address space token. Use ASOVERZ to view resource usage for all UNIX System Services address spaces based on the processes that are running in those address spaces.

Figure 3-7 ASOVERZ View

```

DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ===>                                SCROLL ===>  CSR
CURR WIN  ===> 1          ALT WIN  ===>
>W1 =ASOVERZ=====SJSE=====*=====DDMMYYYY==HH:MM:SS==MVUSS===D===12
Jobname Hex  T Service Total Total Idle% %Delay  Prcs Total      PrcsTot
----- ASID - Class      Dly% Use%      Unknown AvgMem CPU Time      CPU%
AAOAO61    60 S STCNRM  0.00  0.00 100.0    0.00  2.9Mi 00:04:03.46    0.06
AAOTC5B    7A S STCNRM  0.00  0.00 100.0    0.00  1.3Mi 00:00:03.84    0.06
AAOTC6E    7B S STCNRM  0.00  0.00 100.0    0.00  2.4Mi 00:00:02.96    0.04
BCVQ535E   175 S STCNRM  0.00  0.00 100.0    0.00 50.6Mi 00:00:03.25    0.01
BCVQ610E   75 S STCNRM 10.00 90.00  0.00    0.00 51.0Mi 00:17:50.06   24.27
BPXOINIT   173 S SYSTEM  0.00  0.00 100.0    0.00 98304 00:00:02.91    0.00
DB2JDIST   70 S SYSSTC  0.00  0.00 100.0    0.00  8.2Mi 00:00:00.24    0.00
DC$FTSRV   4A O SYSSTC  0.00  0.00 100.0    0.00  5.4Mi 00:00:00.02    0.00
DC$PAS     45 S STCNRM  0.00  0.00 100.0    0.00  5.7Mi 00:14:34.20    0.27
DC$PMAP    61 S STCNRM  0.00  0.00 88.89   11.11  5.0Mi 00:00:00.98    0.00
DC$TCPIP   4B S SYSSTC  0.00  0.00 100.0    0.00 15.8Mi 00:06:18.02    0.07
XUSSKPAS   73 S STCNRM  0.00 11.11 88.89    0.00  3.5Mi 00:00:11.13    0.30

```

MVUSS Easy Action Menu

The MVUSS EZ Action Menu hyperlinks to the EZUACTS menu. There are several actions that you can take from various views to control UNIX System Services. The EZUACTS menu, shown in Figure 3-8, summarizes these actions by indicating which view supplies the action and which line command or hyperlink provides the action. For more information, see Chapter 4, “Controlling USS from MAINVIEW for UNIX System Services.”

Figure 3-8 Easy Action (EZUACTS) Menu

```
DDMMYYYY   HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>                                     SCROLL ==> CSR
CURR WIN ==> 1          ALT WIN ==>
W1 =EZUACTS=====EUSM====*=====DDMMYYYY=HH:MM:SS==MVUSS====D====1
                                MVUSS Easy Action Menu

Action View

> BPXPRM      Use the "Change Config" hyperlink to change BPXparms
> IPCBPXP     Use the "Change Config" hyperlink to change BPXparms
> PSOVERZ     Use the "Multi-Thread" hyperlink to view threads
               Use line cmd "f" to view files in use
               Use line cmd "k" to KILL a process
               Use line cmd "d" to DUMP a process
               Use line cmd "r" to display real time process/thread
               Use line cmd "l" to display/modify process limits
> HFSGINFO    Use the "Max Virtual Stor" or "Min Fixed Stor"
               hyperlink to modify these global parameters
> HFSSOVERZ   Use line cmd "u" to unmount the file system
               Use line cmd "m" to mount a new file system
> FSMOUNTZ    Use the "%Blks Free" hyperlink to extend the file
               Use line cmd "u" to unmount the file system
               Use line cmd "m" to mount a new file system
```

Alarm Management

MAINVIEW Alarm Manager contains a series of views, beginning with the MVALARM Easy Menu view, EZALARM, as shown in Figure 3-9.

Figure 3-9 EZALARM Menu

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ===>                                     SCROLL ===> CSR
CURR WIN ===> 1          ALT WIN ===>
W1 =EZALARM=====SJSE=====*=====DDMMYYYY==HH:MM:SS==MVALARM==D===1

                                MVALARM Easy Menu

  Display Alarms                                Set Up/Modify Alarms
. Current Alarms                                +-----+
. Alarm History                                | Place cursor on | . List Alarm Groups
. Alarm Summary                                | menu item and  | . List Alarm Definitions
                                                | press ENTER   | . All Alarm Definitions
+-----+                                     +-----+
                                                Advanced Options
                                                . Add Alarm Definition
                                                . Edit Alarm Definition
                                                . View Alarm Definition
```

You can hyperlink from EZALARM to other views to display alarms or edit or view alarm definitions. When you add or edit an alarm definition, you can customize the alarm messages as well as threshold levels, monitoring frequency, and action that is taken when an alarm occurs.

For more information about MAINVIEW Alarm Manager, refer to Chapter 7, “MAINVIEW Alarm Manager.”

MAINVIEW Environment

MAINVIEW for UNIX System Services also provides an easy menu for your environmental settings called EZUENV, as shown in Figure 3-10.

Figure 3-10 EZUENV Menu

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ===>                                     SCROLL ===> CSR
CURR WIN ===> 1          ALT WIN ===>
W1 =EZUENV=====SJSE=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D===1

                                Environment Settings

  Change System                                Miscellaneous
. Select Target                                +-----+
. Select SSI Context                            | Place cursor on | . Data Collector Status
. Select product                                | menu item and  | . Historical Data Sets
                                                | press ENTER   | . Request Status
+-----+                                     +-----+
                                                > All Views
```

EZUENV allows you to change your target, SSI context, and product, as well as view your data collector status, view historical data sets, and request status on any previously issued ad-hoc views. For more information, see “Ad Hoc Views” on page 6-3.

MVUSS Fast Menu

The MVUSS Fast Menu, shown in Figure 3-11, provides an easy menu showing many of the most useful functions on one view.

Figure 3-11 MVUSS Fast Menu (EZUFAST)

```
DDMMYYYY   HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =EZUFAST=====EUSM====*=====DDMMYYYY==HH:MM:SS==MVUSS====D====1
                                MVUSS Fast Menu

  System                               Utilities
. System Parameters                   +-----+ > Alarm Management
. IPCS System Parameters | Place cursor on | > MAINVIEW Environment
. Address Space Overview | menu item and  |
. Address Space Delays   | press ENTER    |
. IPC Realtime Activity  +-----+

  Processes                           Filesystems
. Overview                  . All Mounted Filesys
. Resource Usage            . Directory Listing
. Delays                   . HFS Global Detail
. Execution State           . HFS I/O Activity
                              . Regd HFS Files

  Action Views                Product Hyperlinks
> EZ Action Menu             > TCP/IP performance
                              > WEBSPPHERE performance
                              . Return
```

Using MAINVIEW for UNIX System Services Views

This section provides a list of views and examples on how to use MAINVIEW for UNIX System Services to monitor your UNIX System Services.

Process and Thread Activity

MAINVIEW for UNIX System Services monitors your UNIX System Services processes and related activities. Use the following views to obtain both summarized and detailed information about every aspect of the processes.

Table 3-1 Process Views (Part 1 of 2)

View	Description
PESTAT	displays the status of processes specified in DD PARMLIB member BBUTSRP0
PSSTAT	provides the current status for selected processes
PSCMDPRM	displays up to 1024 bytes of the command that initiated a single process, including all parameters
PSCMND	summarizes all the process command information
PSCTTY	displays up to 1024 bytes of the name of the terminal device from which the process was initiated
PSDELAY	tabular view that allows you to see how much of the total delay is attributable to each of the major resource categories for selected processes
PSDELAYZ	summarized view that allows you to see how much of the total delay is attributable to each of the major resource categories for selected processes during multiple intervals
PSEXPAT	displays up to 1024 bytes of the full path name of the command that initiated the process
PSFOPEN	lists the files that are currently open for a process
PSINFO	detailed process overview for a single process, including status, resource usage, and delay reason statistics for the interval
PSOVER	tabular view that allows you to analyze the performance and utilization of resources for the selected processes
PSOVERZ	summarized view of process activity—allows you to analyze the performance and utilization of resources for the selected processes over multiple intervals
PSTREE	helps illustrate the relationship between parent and child processes in the system

Table 3-1 Process Views (Part 2 of 2)

View	Description
PSUSE	tabular view of processor and storage utilization for selected processes during particular intervals
PSUSEZ	summarized view of process utilization, which displays processor and storage utilization for selected processes over multiple intervals
PSWRKDIR	displays up to 1024 bytes of the working directory for the process
THREAD	provides information on CPU usage and state for threads associated with a given process

Monitoring Regular and HFS File Systems

To help you monitor statistics for your file systems, such as storage allocation and I/O, MAINVIEW for UNIX System Services offers the views listed in Table 3-2.

Table 3-2 Regular and HFS File System Views (Part 1 of 2)

View	Description
FSDIRNM	displays full directory name for a file
FSFILENM	displays the full name for a file
FSINFO	provides detailed information for a single file system
FSMNTPRM	displays a detailed view for the full mount parms for a file system
FSMNTPT	displays a detailed view for the full mount point for a file system
FSMOUNT	lists the file systems that are currently mounted for an interval
FSMOUNTZ	provides a summarized list of the file systems that are currently mounted for multiple intervals
FSPACE	displays detailed information for all files and directories within a specified directory
HFSGBUF	displays interval HFS global buffer pool statistics
HFSGBUFZ	displays summary HFS global buffer pool statistics
HFSGINFO	displays detailed HFS global statistics
HFSINFO	provides detailed information for a single HFS file system
HFSIO	displays interval HFS file system I/O statistics
HFSIOZ	displays summary HFS file system I/O statistics
HFSOVER	provides interval HFS file system statistics, including storage allocation, I/O, and caching data

Table 3-2 Regular and HFS File System Views (Part 2 of 2)

View	Description
HFSOVERZ	provides summary HFS file system statistics, including storage allocation, I/O, and caching data
HFSSTAT	displays the status of any required files specified in DD PARMLIB member BBUTSRH0

Monitoring Address Space Information and System Parameters

The address space views contain activity information about the address spaces, including delays. The data is available in both summarized and tabular form. In addition, the BPXPRM view provides information about system parameter settings.

Table 3-3 Address Space Views

View	Description
ASDELAYZ	summarized view of address space delays over multiple intervals
ASINFOZ	detailed information about an address space and the processes running on that address space
ASOVERZ	summarized view of address space activity over multiple intervals
BPXPRM	interval UNIX System Services parameter settings, average counts, and number of attempts to exceed limits
IPCBPXP	interval interprocess communication information, such as shared memory usage and semaphore activity

User and Group Views

User and group views provide a series of user views that summarize process data by a user or group. Table 3-4 lists these views.

Table 3-4 User and Group Views

View	Description
GRPOVERZ	summarizes process activity by group ID
USRJOBZ	summarizes process statistics by job name within session ID and within SAF user ID
USROVERZ	summarizes process activity by the user ID
USRSESSZ	summarizes process statistics by session ID within SAF user ID

Utility View

The utility view listed in Table 3-5 provides information on ad-hoc view requests for a user.

Table 3-5 **Utility View**

View	Description
REQSTAT	<p>lists pending and completed ad-hoc view requests for a user</p> <p>Certain views that a user selects might not be able to return data immediately and will run, in essence, in the background. The REQSTAT view allows a user to check the status of requests running in the background. Actions are provided to allow the user to view the data if the request has finished or purge the request if the data is no longer needed.</p>

Chapter 4 Controlling USS from MAINVIEW for UNIX System Services

Several views have actions that allow you to execute UNIX System Services commands from within MAINVIEW for UNIX System Services. This chapter describes how to set up your system so that you can use those commands. It includes the following topics:

How to Set System and IPCS Parameters.	4-2
How to Extend an HFS File Size	4-5
How to Set Global Buffer Limits	4-7
How to Display Realtime Process/Thread Status	4-8
How to Kill a Process	4-10
How to Dump a Process	4-11
How to Display Files for a Process.	4-12
How to Change Limits for a Process	4-12
How to Mount and Unmount File Systems	4-13

How to Set System and IPCS Parameters

System BPX and IPCS parameters can be changed from within MAINVIEW for UNIX System Services. From the EZUSS menu select **System**, which brings up the EZUSYS view. Hyperlink from either the System Parameters option, which brings up the BPXPRM view (as shown in Figure 4-1 on page 4-3), or the IPCS System Parameters option, which brings up the IPCBPXP view (as shown in Figure 4-2 on page 4-4).

Hyperlink from **Change Config** to bring up the Change UNIX Configuration Settings ISPF panel (shown in Figure 4-3 on page 4-4), which enables you to type over the current settings. When you type **END**, a standard SETOMVS operator command is issued to effect any changes you made to the screen. You will receive either an ISPF panel, informing you of the success of each parameter you attempted to change, or an error report.

Note: If you are viewing an historical time frame, these hyperlinks will still work, and you can change the CURRENT settings of the BPX and IPCS limits that are displayed.

Figure 4-1 BPXPRM View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>                                     SCROLL ==> CSR
CURR WIN ==> 1          ALT WIN ==>
W1 =BPXPRM=====SJSE=====*=*****=DDMMYYYY=HH:MM:SS==MVUSS==D==
System Name.....      SJSE
Sysplex Name.....      BBPLEX01 Change Config...      <- Hyperlink
-Processes/System-
MAXPROCSYS.....      200 ---UIDs/System---
Current #.....      16 MAXUIDS.....      200
Current %.....      8.0 Current #.....      0
Interval Maximum.      16 Current %.....      0.0
Interval Average.      16 Interval Maximum.      0
Intvl Exceed Cnt.      0 Interval Average.      0
Intvl Exceed Rate      0 Intvl Exceed Cnt.      0
--Files/Process--      Intvl Exceed Rate      0
MAXFILEPROC.....      256 --Processes/UID---
Current #.....      0 MAXPROCUSER.....      100
Current %.....      0.0 Current #.....      0
Interval Maximum.      0 Current %.....      0.0
Interval Average.      0 Interval Maximum.      0
--Threads/Process--      Interval Average.      0
MAXTHREADTASKS...      500 Intvl Exceed Cnt.      0
MAXTHREADS.....      10000 Intvl Exceed Rate      0
----MMap Pages----      ---Pseudo TTYs----
MAXMMAPAREA.....      40960 MAXPTYs.....      256
Current #.....      0 ---Remote TTYs---
Current %.....      0.0 MAXRTYS.....      256
Interval Maximum.      0 MAXFILESIZE.....      UNLIMITED
Interval Average.      0 MAXCORESIZE.....      4.0Mi
Intvl Exceed Cnt.      0 MAXASSIZE.....      1.0Gi
Intvl Exceed Rate      0 MAXCPU...      00:01:12.00
----SharePages----
MAXSHAREPAGES....      131072
Current #.....      2596
Current %.....      2.0
Interval Maximum.      2596
Interval Average.      2596
Intvl Exceed Cnt.      0
Intvl Exceed Rate      0

```

Figure 4-2 IPCBXP View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =IPCBXP=====SJSE=====DDMMYYYY==HH:MM:SS==MVUSS==D==1
System Name..... SJSE
Sysplex Name.... BBPLEX01  Change Config.. <- Hyperlink
-Msg Queue Ids.. -Shr Mem Segmnts      -Semaphore Sets.
IPCMSGNIDS..... 500 IPCSHMNIDS..... 500 IPCSEMNIIDS..... 500
Current #..... 0 Current #..... 0 Current #..... 0
Current %..... 0.0 Current %..... 0.0 Current %..... 0.0
Interval Max... 0 Interval Max... 0 Interval Max... 0
Interval Avg... 0 Interval Avg... 0 Interval Avg... 0
Intvl Exceed Ct 0 Intvl Exceed Ct 0 Intvl Exceed Ct 0
Intvl Exceed Rt 0 Intvl Exceed Rt 0 Intvl Exceed Rt 0
-Messages/Msg Q. -Shrd Mem Pages.      -Semaphores/Set.
IPCMSGQNUM.... 10000 IPCSHMSPAGES... 262144 IPCSEMNSEMS.... 1000
-Bytes/Msg Queue Current #..... 0 -Semaphores Ops.
IPCMSGQBYTES... 2.0Gi Current %..... 0.0 IPCSEMNOPS..... 25
Interval Max... 0
Interval Avg... 0
Intvl Exceed Ct 0
Intvl Exceed Rt 0
-ShrMemPags/Sgmt IPCSHMMPAGES... 8192
-Segmnts/AddrSpC IPCSHMNSEGS.... 500

```

Figure 4-3 Change UNIX Configuration Settings Panel

```

----- Change UNIX Configuration Settings -----
COMMAND ==>

Change one or more of the following limits.

MAXASSIZE      1073741824      IPCMSGQBYTES      2147483647
MAXCORESIZE    4194304         IPCMSGNIDS        500
MAXCPUPTIME     7200           IPCMSGQNUM        10000
MAXFILEPROC     256
MAXFILESIZE     UNLIMITED      IPCSEMNIIDS       500
MAXMMAPAREA     40961          IPCSEMNSEMS       1000
MAXPROCSYS      200            IPCSEMNOPS        25
MAXPROCUSER     100
MAXPTYS         256            IPCSHMNIDS        500
                                   IPCSHMMPAGES       8192
MAXSHAREPAGES   131072         IPCSHMNSEGS       500
MAXTHREADS      10000          IPCSHMSPAGES      262144
MAXTHREADTASKS  500
MAXUIDS         200

Type END to modify any changed values,
CANcel to quit without making changes.

```

How to Extend an HFS File Size

Several views have hyperlinks that permit you to extend an HFS file system, if possible.

Note: If you are viewing an historical time frame, the hyperlinks described in this section will still work, and you can change the CURRENT size of an HFS file.

To extend an HFS file system from the FSMOUNT or FSMOUNTZ view, follow these instructions:

- Step 1** From the MVUSS Easy Menu, select **Filesystems**.
- Step 2** From the Filesystems Easy Menu (EZUFSYS), select **All Mounted Filesys** to see the FSMOUNTZ view, as shown in Figure 4-4. (You can also use the FSMOUNT view.)

Figure 4-4 FSMOUNTZ View

```
DDMMYYYY  HH:MM:SS  -----  MAINVIEW WINDOW  INTERFACE(Rv.r.mm)MVUSS  -----
COMMAND  ==>
CURR WIN ==> 1      ALT WIN ==>
>W1 =FSMOUNTZ=====SJSE=====*=====DDMMYYYY=HH:MM:SS====MVUSS====D====8
C File System Dataset Name      Type FS  Read  Total %Blks %B
- -----
*AMD/home                      MVS  AUTO No      1  0.00
USS.SHRD.ROOT.ZOS101           MVS  HFS  Yes 199080 19.79
USS.SJSE.ETC                   MVS  HFS  No   720 57.78
USS.SJSE.VAR                   MVS  HFS  No   192 73.96
USS.SJSE.TMP                   MVS  HFS  No   180 92.22
BMVUSS.OMVS.SJSE.FS            MVS  HFS  No   360 96.94
USS.SJSE.DEV                   MVS  HFS  No   192 97.40
BMVJOJ.OMVS.SJSE.FS            MVS  HFS  No   720 98.75
```

- Step 3** Hyperlink on **%Blks Free** on an HFS file, which will bring up the Extend File System ISPF panel, shown in Figure 4-5.

Figure 4-5 Extend File System Panel

```
Extend File System

HFS => USS.SJSE.VAR
Size =>      192      (pages)
          0.750 (MB)

Enter desired extension, then press the End key.

New VOLUME  N      (Y/N)
Extent Unit  C      (M/T/C)
Extent Amt   1

F1=Help  F3=End  F12=Cancel
```

The Extend File System panel shows the HFS file chosen and its current size in pages and megabytes.

Step 4 If the HFS file has more than one candidate volume, you can have the extension placed on a new volume.

4.A Specify **Y** in the **New Volume** field.

4.B Select the **Extend Unit** (C for Cylinder, T for Track, or M for Megabytes).

4.C Select the **Extend Amount**.

4.D Press **PF3** to execute the command or **PF12** to cancel the request.

Alternatively, to extend an HFS file system from the HFSOVERZ view, follow these instructions:

Step 1 From the EZUFSYS view, select **Overview** under **HFS Filesystems** to see the HFSOVERZ view, as shown in Figure 4-6.

Figure 4-6 HFSOVERZ View

```
DDMMYYYY  HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>>
CURR WIN ==>> 1      ALT WIN ==>>
>W1 =HFSOVERZ=====SJSE=====*=====DDMMYYYY=HH:MM:SS====MVUSS====D====7
C File System Dataset Name      Owning      Mount      Mount      File
- -----
BMVJOJ.OMVS.SJSE.FS             SJSD        06:21:23   10JULYYYY   720
BMVUSS.OMVS.SJSE.FS             SJSD        06:21:12   10JULYYYY   360
USS.SHRD.ROOT.ZOS101            SJSD        00:40:19   10JULYYYY   199080
USS.SJSE.DEV                    SJSE        00:40:19   10JULYYYY   192
USS.SJSE.ETC                    SJSE        00:40:19   10JULYYYY   720
USS.SJSE.TMP                    SJSE        00:40:19   10JULYYYY   180
USS.SJSE.VAR                    SJSE        00:40:19   10JULYYYY   552
```

Step 2 Hyperlink on **File Size** to bring up the Extend File System ISPF panel, shown in Figure 4-5 on page 4-5. (This same hyperlink can be made from HFSOVER.)

or

From HFSOVERZ, if you hyperlink on **File System Dataset Name** (shown in Figure 4-6), the HFSINFO view (shown in Figure 4-7 on page 4-7) is displayed. Hyperlink on the **a File Sys Sz** field to bring up the Extend File System ISPF panel.

Figure 4-7 HFSINFO View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>                                SCROLL ==> CSR
CURR WIN ==> 1          ALT WIN ==>
>W1 =HFSOVERZ=HFSINFO==SJSE=====DDMMYYYY==HH:MM:SS==MVUSS==D==1

File Name..... BMVJOJ.OMVS.SJSE.FS          Interval Average
File Sub Typ.... HFS                          Seq I/O Rate....
File Type..... MVS                          Random I/O Rt...
File System Stat ACTIVE                     Lookup Hit Ratio
Directory..... /home/bmvjoj                Page 1 Hit Ratio
Mount Parm.....                          Indx Hit Ratio..
Mount Time..... 06:21:23                    Index New Tops..
Mount Date..... 10JULYYYY                   Index Splits....
File Sys Sz..... 720 ←                      Index Joins.....
Used Pages..... 9
Attrib Pages.... 1
Cached Pages.... 0
FileSys ID..... 13

```

How to Set Global Buffer Limits

The Virtual Storage Maximum and the Fixed Storage Minimum values of the Global Buffer Limits can be changed from the HFSGINFO view.

To change the values, follow these steps:

- Step 1** From the MVUSS view, select **Filesystems**.
- Step 2** From the HFS Global Data section of the EZUFSYS view, select **Detail**. The HFSGINFO view is displayed, as shown in Figure 4-8.

Figure 4-8 HFSGINFO View

```

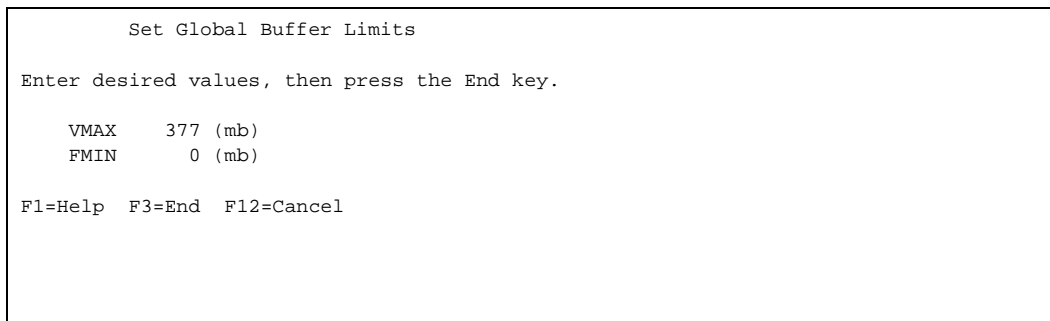
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>                                SCROLL ==> CSR
CURR WIN ==> 1          ALT WIN ==>
>W1 =HFSGINFO=====SJSE=====DDMMYYYY==HH:MM:SS==MVUSS==D==1

Global HFS Info.          Timeframe Intvl.          Timeframe Curr..
System Name..... SJSE    -Avg Virt Stor--          -Virtual Storage
Sysplex Name.... BBPLEX01  In Pages..... 400.00  In Pages..... 400
# Buffer Pools.. 4          In Megabytes... 1.56  In Megabytes... 1.56
Max Virtual Stor 377 % of Max..... 0.41  % of Max..... 0.41
Min Fixed Stor.. 0 -Avg Fixed Stor-          -Fixed Storage--
                                     In Pages..... 0.00  In Pages..... 0
                                     In Megabytes... 0.00  In Megabytes... 0.00
                                     % of Min..... 0.00  % of Min..... 0.00
--Buffering-----          --Buffering-----
Cache Hit Ratio. 1.0000  Cache Hit Ratio. 0.0000
Total Attempts.. 43      Total Attempts.. 0
Hit Ratio 1st Pg 0.0000  Hit Ratio 1st Pg 0.0000
Total Attempts.. 0      Total Attempts.. 0

```

- Step 3** You can hyperlink on either the **Max Virtual Stor** field or the **Min Fixed Stor** field to bring up the Set Global Buffer Limits ISPF panel, shown in Figure 4-9.

Figure 4-9 Set Global Buffer Limits Panel



```
Set Global Buffer Limits

Enter desired values, then press the End key.

VMAX      377 (mb)
FMIN       0 (mb)

F1=Help  F3=End  F12=Cancel
```

This panel displays the storage limits for the HFS buffers currently in effect, specifically the VMAX and FMIN values.

- Step 4** Change one or both of these values.
- Step 5** Press the **End** key.

How to Display Realtime Process/Thread Status

Several USS actions are available from the EZUPRC view. To display the realtime status of a process and its threads, follow these instructions:

- Step 1** Display the PSOVERZ view, as shown in Figure 4-10 on page 4-9.

Figure 4-10 PSOVERZ View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =PSOVERZ=====TEMPNAME=*=====DDMMYYYY==HH:MM:SS==MVUSS===D===59
C ProcessId Command Elapsed Jobname Multi- Total Total Total Total Sys Cal
- ----- Name ProcTime ----- Thread Dly% Run% Zomb% Othr% Rat
   1 BPXPINPR 10:17:44 BPXOINIT Yes 100.0 0.00 0.00 0.00 0.2222
   3 MVW9SNMP 10:16:28 DC$MVWEB Yes 0.00 100.0 0.00 0.00 2.0495
   4 DSIMNT 10:16:01 CNMPROCC No 0.00 100.0 0.00 0.00 0.0000
   5 EZBTCPIP 10:15:50 DC$TCPIP Yes 0.00 100.0 0.00 0.00 0.0000
   7 EZBTSSL 10:15:44 DC$TCPIP No 0.00 100.0 0.00 0.00 0.0000
   8 EZBTMCTL 10:15:44 DC$TCPIP No 0.00 100.0 0.00 0.00 0.0000
   9 EZACFALG 10:15:44 DC$TCPIP No 100.0 0.00 0.00 0.00 0.0196
  11 EZASASUB 10:15:42 DC$TCPIP No 100.0 0.00 0.00 0.00 0.0000
  12 BBSDTCPL 10:15:40 DC$SVIEW No 100.0 0.00 0.00 0.00 0.0000
  14 IMWHTTPD 10:15:40 IMWEBSESV Yes 0.00 0.00 0.00 100.0 11.8789
  15 TCPMHFSS 10:15:39 XTSTJPAS No 0.00 100.0 0.00 0.00 0.0032
  16 EZASNMPD 10:15:39 DC$SNMPD No 100.0 0.00 0.00 0.00 0.0000
  17 BPXVCLNY 10:15:38 DC$NFSC No 0.00 100.0 0.00 0.00 0.0000
  18 GFSCMAIN 10:15:38 DC$NFSC No 0.00 100.0 0.00 0.00 0.0000
  19 GFSCRPCD 10:15:38 DC$NFSC No 0.00 0.00 0.00 100.0 0.0000
  20 GFSCRPCD 10:15:37 DC$NFSC No 0.00 0.00 0.00 100.0 0.0000
  21 ECACMGRS 10:15:37 CTSGATE Yes 100.0 0.00 0.00 0.00 0.0000
 107 BBM9SZ20 10:15:37 XUSSMPAS Yes 0.00 0.00 0.00 100.0 0.0000

```

Step 2 To display detailed information about a process, hyperlink on a ProcessId. (In the example in Figure 4-11, the Current Process ID is 107.)

Figure 4-11 EZUPRC View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PSOVERZ==EZUPRC==TEMPNAME=*=====DDMMYYYY==HH:MM:SS==MVUSS===D===1
Process Easy Menu

Current Pid -> 107
Dubbed Time -> 08:53:20
Dubbed Date -> 13JULYYYY

Activity
. Overview
. Resource Usage
. Delays

Actions
. Process/Thread
. Kill Process
. Display Files
. Process Limits
. Dump Process

General
. Current Status
. Command Name
. Detail

+-----+
| Place cursor on |
| menu item and   |
| press ENTER     |
+-----+

. Return...

```

Step 3 To display the realtime status of this process and its threads, hyperlink on **Process/Thread**.

The product issues the Operator console command to display the process and its threads; the result is displayed in a scrollable ISPF panel, as shown in Figure 4-12.

Figure 4-12 Scrollable ISPF Panel

							MORE: +
D OMVS,PID=107							
BPX0040I 11.23.38 DISPLAY OMVS 537							
OMVS 000F ACTIVE OMVS=(C1)							
USER	JOBNAME	ASID	PID	PPID	STATE	START	CT_SECS
PASSTC	XUSSMPAS	010B	107	1	MR	08.53.20	87.521
LATCHWAITPID= 0 CMD=BBM9SZ20							
THREAD_ID	TCB@	PRI_JOB	USERNAME	ACC_TIME	SC	STATE	
197E9C0000000000	006F15A8				.001	NOP	
197EA80000000001	006BF848				49.725	GPS	
197EC00000000002	006CAE88				1.630	PCT	
197ECC0000000003	006CB1E8				.388	PCT	
197ED80000000004	006CB540				.183	PCT	
197EE40000000005	006CB7F8				.100	PCT	
197EF00000000006	006CBA28				.085	PCT	
1980F40000000008	006CBC58				.084	PCT	

How to Kill a Process

To kill a process, follow these instructions:

- Step 1** Hyperlink on the **Kill Process** field in the EZUPRC view (see Figure 4-11 on page 4-9).

Several options of the KILL command are presented in an ISPF panel, as shown in Figure 4-13 on page 4-11.

- Step 2** Enter your choice and press **End**.

Figure 4-13 Options of the KILL Command

```

----- Signal (KILL) A Process -----
COMMAND ==>

You have made a request to signal process id 107.
Type the signal you wish to send and press the END key.
Valid signals are described below.

Enter Choice: 0

1  SIGHUP      Hangup detected on controlling terminal
3  SIGABRT     Terminate with a dump - can be intercepted
7  SIGSTOP     Stop (cannot be intercepted or ignored)
9  SIGKILL     Termination (cannot be intercepted or ignored)
14 SIGALRM     Timeout - used to terminate the current sleep()
15 SIGTERM     Terminate the process (default)
16 SIGUSR1     Application-defined signal
17 SIGUSR2     Application-defined signal
19 SIGCONT     Continue if stopped
20 SIGCHLD     Child process terminated or stopped
24 SIGQUIT     Interactive termination
25 SIGTSTP     Interactive stop - pauses a program

```

How to Dump a Process

To dump a process, hyperlink on the **Dump Process** field in the EZUPRC view (see Figure 4-11 on page 4-9).

The BPXOINIT,DUMP modify command is issued for the process, as shown in Figure 4-14

Figure 4-14 Dumping a Process

```

                                Console Response (USSM)
COMMAND ==>                                SCROLL ==> CSR
-----

F BPXOINIT,DUMP=23
BPXM027I COMMAND ACCEPTED.

```

How to Display Files for a Process

To display the open files for a process, hyperlink on the **Display Files** field in the EZUPRC view (see Figure 4-11 on page 4-9).

An ISPF panel is displayed, showing the files open for the process; see Figure 4-15.

Figure 4-15 **Displaying Open Files for a Process**

```

DDMMYYYY   HH:MM:SS  ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>>
CURR WIN ==>> 1      ALT WIN ==>>
>W1 =PSFOPEN=====TEMPNAME=*=====DDMMYYYY==HH:MM:SS==MVUSS==D==9
C  ProcessId FilSer DeviceId Dir  File Open                               File
-  ----- Number ----- Type Type Flags                               Name
      23      0      4 cd  /
      23 25913      3 fd      O_RDWR      /dev/nu
      23 25913      3 fd      O_RDWR      /dev/nu
      23 25913      3 fd      O_RDWR      /dev/nu
      23 44      10 fd      O_RDONLY      /usr/li
      23 0      13 fd  =      O_RDWR      Not Ava
      23 25913      3 fd      O_CREAT|O_TRUNC|O_WRONLY      /dev/nu
      23 22      15 fd  =      O_RDWR      Not Ava
      23 0      0 rd
      23 0      0 rd      Not App

```

How to Change Limits for a Process

To display an ISPF view that allows you to change the limits for a process, hyperlink on the **Process Limits** field in the EZUPRC view (see Figure 4-11 on page 4-9).

An ISPF panel will be displayed showing the current limits, as shown in Figure 4-16 on page 4-13; you can type over these limits.

Figure 4-16 Changing Limits for a Process

```

----- Change UNIX Process Limit Settings -----
COMMAND  ==>

SAF User: WEBSRV          PID : 23
Jobname : DC$FTSRV       ASID: 008C

Change one or more of the following limits.

Attribute          Current      MAX      Limit

MAXFILEPROC        7           8        1001 *
MAXFILESIZE        ---          ---      NOLIMIT
MAXPROCUSER        56          57      NOLIMIT
MAXQUEUEDSIGS      1           1        1000
MAXTHREADS         0           0        1001 *
MAXTHREADTASKS     0           0        1000
IPCSHMNSEGS        0           0        1000
MAXCORESIZE        ---          ---      4194304

Type END to modify any changed values,
      CANCEL to quit without making changes.

```

How to Mount and Unmount File Systems

To mount or unmount a file system, you issue the U or M line commands from the HFSSOVER or FSMOUNT view.

To unmount a file system, place the U line command on the line of the file you want to unmount. You will be presented with a conformation panel.

To mount a new file system, place the M line command on any line. You will be presented with an ISPF dialog so you can enter the mount point and the MVS data set name.

Chapter 5 Comparing Performances with Historical Data

The Historical Data feature, discussed in this chapter, allows you to look at the past performances of your system to verify that the current performance is normal.

This chapter includes the following topics:

Displaying Historical Data	5-2
Using Dynamic Fields with Historical Data	5-3
Issuing the TIME Command	5-4

Displaying Historical Data

When you access historical data, MAINVIEW for UNIX System Services presents data from the most recent interval specified, as well as a preceding any intervals for which data exists.

If you are unsure of which intervals have available data, type **DSLIST** on the **COMMAND** line.

Note: If **DSLIST** does not work, try typing **VIEW DSLIST**.

The categories **From Date** and **To Date** contain data that is available for the specified time frames. Data from periods outside of these categories is not immediately available for one of the following reasons:

- Data was not collected.
- Data was archived.
- Data was overwritten by new data.

If you need access to data that is not immediately available, see your product administrator. Administrators should consult the *MAINVIEW[®] Common Customization Guide*.

Using Dynamic Fields with Historical Data

With historical data, you can use dynamic fields to see the time, date, and hour the data was collected.

Dynamic fields include

- **Interval Date**—Date the data was collected.
- **Intvl Time**—Ending time of the interval during which the data was collected.
- **Hr (hour)**—Hour of the day that the data was collected. This value does not include minutes; for example, when **Intvl Time** shows 8:30, **Hr** shows 8.

If the dynamic fields do not appear automatically when you access historical data, you can include the fields by performing the following steps:

- Step 1** On the **COMMAND** line, type **CUST**.
- Step 2** On the **COMMAND** line, type **E** (Show excluded).
- Step 3** On the **OPTION** line, type **MVParms**.
- Step 4** Select Option 2, **Information Display Parameters**.
- Step 5** In the **Show Time** and **Show Date** fields, type **Y**.

If you do not want the fields to appear automatically, type **N**.

Issuing the TIME Command

When you issue the TIME command with no parameters, MAINVIEW for UNIX System Services prompts you for the parameters on a pop-up panel.

The syntax for the TIME command is

```
TIME [date time [duration|NEXT|PREV]] [DOW mask TOD mask]
```

The following table lists the various elements in the TIME command.

date	<p>Is the ending date of the data you want to look at. This parameter is required. An asterisk (*) gives you the default value, the current date.</p> <p>Specify the date in the same format as the current date, which always appears in the upper left corner of the screen.</p> <p>Note: You can change the format of the date by selecting Option 0 on the MAINVIEW Selection Menu, and then selecting Option 4 on the MAINVIEW Parameter Editors screen.</p>								
time	<p>Is the ending time of the data you want to view. This parameter is required. An asterisk (*) gives you the default value, the current time.</p> <p>Specify the time in the format hh:mm.</p>								
duration	<p>Is the time period over which you want your data summarized. This parameter is optional. The default is one recording interval (usually 15 or 30 minutes).</p> <p>Specify the duration in the format nnnnu, where</p> <table> <tr> <td>nnnn</td><td>Indicates the number of hours, minutes, or intervals in the duration</td></tr> <tr> <td>u</td><td>Indicates the unit of time: I (intervals), M (minutes), H (hours), D (up to 416 days), or W (up to 59 weeks)</td></tr> <tr> <td>TODAY or TDAY</td><td>Specifies today's intervals since midnight</td></tr> <tr> <td>MONTH</td><td>Specifies one month</td></tr> </table>	nnnn	Indicates the number of hours, minutes, or intervals in the duration	u	Indicates the unit of time: I (intervals), M (minutes), H (hours), D (up to 416 days), or W (up to 59 weeks)	TODAY or TDAY	Specifies today's intervals since midnight	MONTH	Specifies one month
nnnn	Indicates the number of hours, minutes, or intervals in the duration								
u	Indicates the unit of time: I (intervals), M (minutes), H (hours), D (up to 416 days), or W (up to 59 weeks)								
TODAY or TDAY	Specifies today's intervals since midnight								
MONTH	Specifies one month								
NEXT	Is specified <i>instead</i> of the duration parameter. NEXT uses the duration value currently in effect to cycle forward by the duration amount.								
PREV	Is specified <i>instead</i> of the duration parameter. PREV uses the duration value currently in effect to cycle backward by the duration amount.								
DOW mask	Limits the selected intervals to end on specific days of the week.								
TOD mask	Limits the selected intervals to end within a specific time of the day.								

In place of the date, time, or duration parameters, you can use an asterisk (*) to specify the default value of the parameter, or an equal sign (=) to specify the most recently requested date, time, or duration.

Examples of Using the TIME Command

The following examples demonstrate several different uses of the TIME command. The appearance of the date depends on the date format in use. The format for the date in these examples is *mm/dd/yyyy*.

Example 1: Assume that today is June 10, YYYY. To retrieve data from one week ago at 9:25 A.M., type

TIME 06/03/YYYY 09:25

This command displays data from the end of the interval that contains 9:25 A.M.; that is, the interval between 9:15 A.M. and 9:30 A.M.

Example 2: To display data from the next interval starting on the same date and time as the last interval specified, type

TIME == NEXT

The NEXT parameter steps forward one Extractor interval (the default) from the date and time last specified. Specifically, data from June 3 during the interval 9:30-9:45 is displayed.

Note: You might find it useful to set one PF key to issue **TIME == NEXT** and another PF key to issue **TIME == PREV**. This shortcut allows you to cycle quickly through recording intervals without having to manually type the TIME command and all its parameters.

Example 3: To display data from the 3-hour period ending on June 6, YYYY at 12 noon, type

TIME 06/06/YYYY 12:00 3h

Assuming 15-minute intervals, the duration field contains 180M (four intervals per hour).

Example 4: To display data from the next day during the same time period, type

TIME 06/07/YYYY ==

The equal sign in this position retains the time you specified last, 12:00, and the duration you last specified, 3h.

Example 5: To display data that includes the 30-minute interval ending at 8:00 A.M. on June 16, type

TIME 06/16/YYYY 08:00 30M

Example 6: To display data from earlier today at 9:00 A.M., type

TIME * 9:00

The asterisk in this position indicates the current date.

Example 7: To reestablish the current time frame, type

TIME * * *

Example 8: To display data that includes all intervals ending during prime shifts on weekdays from last month, type

TIME ENDOFMONTH 23:59 MONTH WEEKDAYS PRIMESH

If you need more information on the TIME command, you might want to work through “Using the TIME Command” in Chapter 4 of *MAINVIEW® for UNIX System Services Getting Started Guide*.

Chapter 6 Controlling Data Collectors

The MAINVIEW for UNIX System Services data collectors are programs that extract system information from the Unix System Services control blocks. The information is then recorded in interval records and available to display in one or more views. You can activate and deactivate the data collectors to control which information is collected. When a data collector is deactivated, there is no data available to display in the views that use that data collector. Use caution when deactivating data collectors.

This chapter includes the following topics:

Understanding Data Collectors	6-2
Controlling the Collectors.	6-4
Data Collectors and Product Views	6-6

Understanding Data Collectors

There is at least one data collector for each aspect of system performance. For example, the PRCS collector collects only data associated with processes, while the FMNT collector focuses on data related to file systems.

Here is how the data collectors work:

1. At the beginning of every interval, an interval record is created for each category of data to be collected. An interval record is what data collectors use to store the data collected during the interval.

Each category of data has its own uniquely named record: the process collector stores its data in the PRRE record, the file system collector uses the FMRE record, and so on.

2. As soon as the interval begins, each collector starts collecting its data using the OE data gatherer.

From then on, each collector periodically collects data. A preset rate called a sample rate (also called a collector rate) determines how often a collector collects data. Each collector has its own sample rate associated with it.

A sample rate is simply a multiple of the base cycle, which is preset by MAINVIEW for UNIX System Services at one second. Therefore, if a collector's sample rate is 15, the collector gathers its data once every 15 seconds.

3. The data collectors deposit their data in their records. This data is permanent and updated continuously throughout the interval. At the end of the interval, the record is written to the historical database, where it can be referenced by the TIME command.

Steps in Requesting a View

When you request a view from MAINVIEW for UNIX System Services, the following actions occur:

1. MAINVIEW for UNIX System Services checks the view's definition to see what data the view requires. For example, the PSOVERZ view definition tells MAINVIEW for UNIX System Services to get data from the PRRE, P1RE, P3RE, and MTRE interval records (which contain data gathered by the PRCS and WADR collectors).
2. MAINVIEW for UNIX System Services accesses the current PRRE, P1RE, P3RE, and MTRE interval records.
3. MAINVIEW for UNIX System Services formats the data according to the specifications in the view definition. This formatted data is now considered a complete view.
4. The view is displayed on your monitor.

Ad Hoc Views

Some views only provide information that is collected at the time the view is requested. The selectors for these views directly request the data to be gathered instead of accessing interval data collected by data collectors. For example, PSFOPEN and FSPACE are ad hoc views.

The REQSTAT view shows the status of requests for data that have been made by ad hoc selectors.

Controlling the Collectors

Table 6-1 describes how you can control the data collectors.

Table 6-1 Controlling Data Collectors

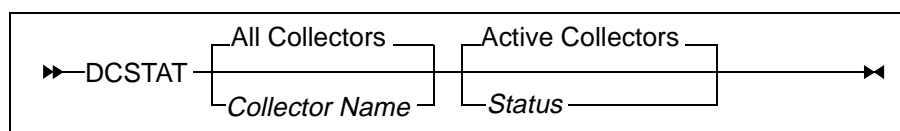
To Do This	Follow This Procedure
Start or stop all of the MAINVIEW for UNIX System Services data collectors all at once	Specify the DC=START or DC=STOP parameter in the JCL used to initialize the PAS. If the PAS is already active, issue the MVS MODIFY command against the PAS: F <pasname>,DC=START or F <pasname>,DC=STOP where <i>pasname</i> is the name of the PAS.
Start or stop individual MAINVIEW for UNIX System Services data collectors	Use the DCSTAT view.

Using DCSTAT

Use DCSTAT to display the current status of the MAINVIEW for UNIX System Services data collectors and to enable or disable any collector.

Displaying Data Collectors

To use DCSTAT to display data collectors, use the following syntax:



The following table explains the variables in the DCSTAT syntax.

<i>Collector Name</i>	Is the name of the data collector to be displayed. See the Collector field in the default view.
<i>Status</i>	Is the status of the data collector, either Active or Inactive. See the Status field in the default view. Wildcard selections can be used.

The DCSTAT view is shown in Figure 6-1 on page 6-5.

Figure 6-1 DCSTAT View

```

DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm)MVUSS -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =DCSTAT=====SJSC=====*=====DDMMYYYY==HH:MM:SS=====MVUSS====D====4
C Name Data Collector Description          Status
- - - - -
BPXP USS System Parameters                Active
HFSG HFS Global                          Active
FMNT Mounted Filesystems                  Active
PRCS Process Activity                      Active
WADR WLM Address Space                    Active

```

The **Collector** and **Status** fields should reflect the data you specified in the DCSTAT command. The **Description** field identifies the type of data collected.

If MAINVIEW for OS/390 or CMF MONITOR are installed, the DCSTAT view also displays the data collectors for those products.

Enabling and Disabling Collectors

Table 6-2 provides the procedure for enabling and disabling collectors through DCSTAT.

Table 6-2 Enabling and Disabling Collectors with DCSTAT

To Do This	Follow This Procedure
Activate an inactive collector	Type A next to the collector name, and then press Enter . The collector becomes active immediately. Note: Because the collector was not active throughout the current interval, the data for the current interval could be inaccurate.
Deactivate a collector	Type D next to the collector name, and then press Enter . The collector is deactivated immediately.

Warning! A collector can only be activated if it was turned off through DCSTAT *after* initialization of the MAINVIEW for UNIX System Services PAS. You cannot activate a collector that was not originally activated when the PAS was initialized.

Data Collectors and Product Views

Table 6-3 lists the views that are affected by turning off each of the MAINVIEW for UNIX System Services data collectors. Unless otherwise noted in the table, no data is available for display in the corresponding view when the data collector is turned off.

Table 6-3 Data Collectors and Product Views (Part 1 of 2)

Collector	View	Note
PRCS	ASDELAYZ	
	ASINFOZ	
	ASOVERZ	
	GRPOVERZ	
	PSCMDPRM	
	PSCMND	
	PSCTTY	
	PSDELAY	
	PSDELAYZ	
	PSEXPAT	
	PSINFO	
	PSOVER	
	PSOVERZ	
	PSSTAT	
	PSTREE	
	PSUSE	
	PSUSEZ	
	PSWRKDIR	
	THREAD	
	USRJOBZ	
	USROVERZ	
	USRSESSZ	

Table 6-3 Data Collectors and Product Views (Part 2 of 2)

Collector	View	Note
FMNT	FSMOUNTZ	
	FSMOUNT	
	FSFILENM	
	FSMNTPT	
	FSMNTPRM	
	HFSINFO	
	HFSOVERZ	
	HFSOVER	
	HFSIOZ	
	HFSIO	
HFSG	HFSGINFO	
	HFSGBUFZ	
	HFSGBUF	
WADR	ASOVERZ	By turning off this data collector, no data is available to be displayed in some of the fields in the corresponding views. The view is displayed after a message is issued, indicating that some data in the view will be missing.
	ASDELAYZ	
	ASINFO	
	PSCMND	
	PSDELAY	
	PSDELAYZ	
	PSINFO	
	PSOVER	
	PSOVERZ	
	PSUSE	
	PSUSEZ	
	PSSTAT	
	PSTREE	
BPXP	BPXPRM	
	IPCBXP	

Chapter 7 MAINVIEW Alarm Manager

MAINVIEW Alarm Manager works in conjunction with MAINVIEW for UNIX System Services, as well as other MAINVIEW products, to provide alarms. These alarms display messages that can alert you when system resources are overutilized.

This chapter includes the following topics:

Alarm Definitions	7-3
MAINVIEW Alarm Manager Views	7-3
Alarm Reporting	7-4
Additional Information	7-4

Products that use MAINVIEW Alarm Manager are

- MAINVIEW for UNIX System Services
- CMF MONITOR
- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for IMS
- MAINVIEW for MQSeries
- MAINVIEW for OS/390
- MAINVIEW VistaPoint

MAINVIEW Alarm Manager is capable of simultaneously monitoring multiple systems, which means that MAINVIEW Alarm Manager installed on one system keeps track of your entire SYSPLEX.

MAINVIEW for UNIX System Services contains a number of prepackaged alarms that you can customize to meet your specific monitoring needs. The following alarms are available:

Table 7-1 MAINVIEW for UNIX System Services Alarms

Alarm	Triggered When
PROCSHI	current number of processes has exceeded a specified percentage of the maximum allowable concurrent processes on the system
PROCUHI	current number of processes for any one user has exceeded a specified percentage of the maximum allowable concurrent processes for a user
UIDSYSHI	current number of user IDs on the system has exceeded a specified percentage of the maximum allowable concurrent user IDs on the system
FILEPRHI	current number of files open for a process has exceeded a specified percentage of the maximum allowable files open for a process
FSFREELO	percent of unprivileged free blocks for a file system falls below a specified value
HFSLOW	interval lookup cache hit ratio for a HFS file system falls below a specified value
HFSP1LOW	interval page one cache hit ratio for a HFS file system falls below a specified value
HFSIRLOW	interval index read cache hit ratio for a HFS file system falls below a specified value
HFSIWLOW	interval index write cache hit ratio for a HFS file system falls below a specified value
HFSILOW	interval index I/O cache hit ratio for a HFS file system falls below a specified value
HFGHTLOW	interval cache hit ratio for global HFS falls below a specified value
HFGP1LOW	interval page one cache hit ratio for global HFS falls below a specified value
REQDPRCS	one or more processes listed in the PESTAT view have a status of Missing
REQDHFS	one or more HFS files listed in the HFSSTAT view have a status of Missing
REQDHFFSM	one or more HFS files listed in the HFSSTAT view have a Match Indicator of N, indicating that the desired HFS file is mounted but is not on the required mount point

Alarm Definitions

Alarm definitions consist of the following parameters:

- threshold and filter criteria
- view, product, and context for which the criteria are established
- message IDs and message text
- monitoring frequency and time intervals
- hyperlinks to views, extended help, or AutoOPERATOR commands

Alarm definitions are stored in a parameter library member read by MAINVIEW Alarm Manager at MVALARM PAS initialization.

Threshold conditions are defined as one of five priority levels:

- Informational
- Warning
- Minor
- Major
- Critical

MAINVIEW Alarm Manager Views

MAINVIEW Alarm Manager is structured with a hierarchy of views, beginning with the Easy Menu view, EZALARM, as shown in Figure 7-1.

Figure 7-1 EZALARM View

```
DDMMYYYY  HH:MM:SS ----- MAINVIEW WINDOW INTERFACE(Rv.r.mm)MVUSS -----
COMMAND  ==>                                     SCROLL ==> CSR
CURR WIN ==> 1                                ALT WIN ==>
W1 =EZALARM=====DXSTH=====*=====DDMMYYYY==HH:MM:SS=====MVALARM==D====1
                                MVALARM Easy Menu

    Display Alarms                                Set Up/Modify Alarms
. Current Alarms                                +-----+ . List Alarm Groups
. Alarm History                                | Place cursor on | . List Alarm Definitions
. Alarm Summary                                | menu item and | . All Alarm Definitions
                                                | press ENTER  |
                                                +-----+
                                                Advanced Options
                                                . Add Alarm Definition
                                                . Edit Alarm Definition
                                                . View Alarm Definition
```

Hyperlink from EZALARM to other views to display alarms or to view or edit alarm definitions. When you add or edit an alarm definition, you can customize the alarm messages, as well as the threshold levels, monitoring frequency, and action that is taken when an alarm occurs.

Alarm Reporting

Alarms can be reported in one of the following ways:

- as WTOs on the OS/390 image where MAINVIEW Alarm Manager is executing
- as a list of alarm messages displayed in MAINVIEW Alarm Manager ALARM or ALARMH views
- by being passed directly to the MAINVIEW AutoOPERATOR Rules Processor interface, if AutoOPERATOR is running on the same OS/390 image as MAINVIEW Alarm Manager

MAINVIEW Alarm Manager also issues End messages when alarm conditions cease. End messages can also be reported in any of the three destinations previously listed in this section.

Additional Information

For complete information on the MAINVIEW Alarm Manager, please refer to the *MAINVIEW® Alarm Manager User Guide*.

Chapter 8 Graphing Your Data

Like MAINVIEW for OS/390 and CMF MONITOR Online views, some MAINVIEW for UNIX System Services views come with graphs that depict the data in pictorial form. You can change these graphs, or create graphs of your own, using a component of MAINVIEW called Graph Manager.

This chapter includes the following topics:

Displaying a Chart	8-2
Customizing Graphs (Charts)	8-3
Printing a Chart	8-7

You can use Graph Manager to complete the following tasks:

- display a chart
- customize a chart
- print a chart or save it in a picture file for later retrieval

Note: To save a chart definition, the BBTLIB data set must be allocated to your user ID. At most sites, the data set is automatically allocated when you access MAINVIEW. If the BBTLIB data set is not allocated to your user ID, see the *MAINVIEW® Common Customization Guide* or your system administrator for information about how to allocate the data set.

Displaying a Chart

To display a chart, follow these steps:

Step 1 Display the view for which you want to see the chart.

Step 2 On the **COMMAND** line, type **GRaph**.

The view is replaced by a full-screen chart of the view data.

The MAINVIEW window interface automatically accesses high-resolution charts or low-resolution charts, depending upon your terminal type.

- High-resolution terminals require the use of GDDM and include the 3279, 3179G, 3290, and 3274G terminals.
- Low-resolution terminals, which include 3277, 3278, 3178, and so on, use ISPF dialog management services instead of GDDM.

These charts use characters, such as asterisks and dashes, to represent graphics.

Customizing Graphs (Charts)

You can customize graphs so that whenever you issue the **GRAPH** command from a certain view, graphical information for that view is displayed.

To customize the original graph with a particular view, follow these steps:

- Step 1** Display **PSDELAY**.
- Step 2** To enter view customization, type **CUST** on the **COMMAND** line.
- Step 3** Select **Option G** for graph.

The dynamic customization window for the Graph option is displayed, as shown in Figure 8-1.

Figure 8-1 Graph Customization Window

```

-----< Graph - Specify columns for graphing >-----
X=> E      Chart Type => $SBARH   Library => D      (D-dist, S-site, Userid)
1=> J   5=>   Title   => Interval Process Status Breakdown
2=> AAA 6=>   X-axis  => Command Name      Select X-axis and Y-axis columns
3=> K   7=>   Y-axis  => Process Status    and enter optional titles.
4=> M   8=>                               Preview chart => N (Y/N)
-----

```

- Step 4** Review the following table to determine possible changes to the graphical output, and follow the associated instructions to make any changes.

Table 8-1 Graph Customization Commands

To Change	Do This
Element used for the X-axis	In the X field, type the appropriate column letter.
Element used for the Y-axis	In fields 1 through 8 , type the appropriate column letter.
Title of the graph	In the Title field, type the new title.
X-axis label	In the X-axis field, type the new label.
Y-axis label	In the Y-axis field, type the new label.
Chart type	If you know the name of the chart definition you want to use, type its name in the Chart Type field. (To see a list of chart definition names and their descriptions, press PF1 and scroll down until the list is visible.) If you do not know the name, continue following the numbered steps of this procedure. Then follow the steps under “Changing the Chart Type” on page 8-4.

- Step 5** In the **Preview chart** field, type **Y**.
- Step 6** To test your changes, press **Enter**.
- Step 7** To return to view customization, press **PF3** (End).
- Step 8** Press **PF3** to exit view customization if you are satisfied with your changes.
- Step 9** Save your modifications by typing **YES** in the **Save changes** field.

Changing the Chart Type

If you want to change the chart type but do not know which type to use, follow these steps:

- Step 1** From view customization, type **Y** in the **Preview chart** field.
- Step 2** Display the graph by pressing **Enter**.
- Step 3** Enter Graph Manager by pressing **PF1**.

The CHART SELECTION panel is displayed.

Note: For specific information about the fields and options available from this panel, press **PF1** (Help).

If you have a high-resolution terminal, the CHART SELECTION panel looks like Figure 8-2.

Figure 8-2 High-Resolution CHART SELECTION Panel

```

----- CHART SELECTION - $SBARH -----
OPTION ==>

  A - List, select, update chart definitions      LEGEND POSITION ==> R
  B - Display data item selection list           (B=bottom,T=top,R=right)
  C - Redefine current axis range and labels
  blank - Generate chart

CHART TYPE ==> 3   (Enter one of the chart types listed)
CHART TITLE ==> Interval Process Status Breakdown

1 Line graph    2 Scatterplot    3 Stacked bar    4 Overlay bar    5 Pie chart

Data items currently selected:
X-axis: P3GCMDN (not used for pie charts)
Y-axis: PRIDLYP PRIITHP PRIZOMP PRIOTHP

```

If you have a low-resolution terminal, the panel looks like Figure 8-3.

Figure 8-3 Low-Resolution CHART SELECTION Panel

```

----- CHART SELECTION - $MBARH -----
OPTION  ==>

      A - List, select, update chart definitions          LEGEND POSITION ==> R
      B - Display data item selection list                (B=bottom,T=top,R=right)
      C - Redefine current axis range and labels
      blank - Generate chart

CHART TYPE ==> 3    (Enter one of the chart types listed)
CHART TITLE ==> Interval job workflow and delay

      1 Line graph      2 Scatterplot      3 Stacked bar      4 Overlay bar      5 Pie chart

Data items currently selected:
X-axis: ASGNAME  (not used for pie charts)
Y-axis: ASIWKFL  ASIDLYP

For hardcopy of a displayed chart, press the ISPF defined PRINT PFK.

```

Step 4 From the CHART SELECTION panel, select Option A to choose a new chart type.

The CHART DEFINITION panel is displayed, which contains a list of predefined chart definitions.

Step 5 Type S next to the chart definition you want to display.

Step 6 Press **Enter** twice to see the chart you selected.

Step 7 Continue selecting and displaying different chart definitions until you find the one you want to use for PSDELAY.

- If you do not find the one you want, or if you find one but want to make changes to it, proceed with Step 8.
- If you are satisfied with one of the distributed definitions, proceed with Step 9.

Step 8 If you do not find the chart type you want in one of the distributed definitions, or if you want to change one of the distributed versions, you must create a new chart definition. Follow these steps:

8.A Select the distributed definition that is *most similar* to the chart type you want to use.

8.B Press **Enter** to return to the CHART SELECTION panel.

- 8.C** Change the chart type by typing the number corresponding to the chart type you want in the **CHART TYPE** field.
- 8.D** If you have a high-resolution terminal, you can now select Option **C** and make additional changes to your graph in the **CHART AXES** panel. (If you have a low-resolution terminal, this option is not available to you.)
- 8.E** When you are satisfied with your changes, from the Chart Specification panel, select Option **A**.
- 8.F** In the **CHART DEFINITION NAME** field, assign a name to your customized chart.
- 8.G** In the **CHART LIBRARY** field, type **S** to save the chart in your site-wide chart library.
- 8.H** To save the chart in your personal chart library, type your user ID in the **CHART LIBRARY** field. (You cannot save a customized chart in the distributed library.)
- 8.I** To add (or replace) your chart definition, type **A** in the **OPTION** field.

Step 9 Press **PF3** (End) until you return to view customization.

Notice how the chart definition you selected is now displayed in the **CHART TYPE** field. Make any other changes that you want in the Graph Customization window (Figure 8-1 on page 8-3), and then press **Enter**.

Step 10 Press **PF3** to save the chart and exit view customization.

The modified chart is now saved with **PSDELAY** and is displayed every time you type **GRaph** from that view.

Printing a Chart

All low-resolution graphics are printed using the ISPF PRINT command.

To print high-resolution graphics, follow these steps:

Step 1 Display the chart you want to print or transfer.

Notice the number of the PF key that has been assigned to HARDCOPY in the lower right corner of your screen. If you want to change this PF key definition, press **PF1**, and then specify the new number in the **HARDCOPY PFKEY** field on the CHART SELECTION panel.

Step 2 Press the Hardcopy PF key.

The GRAPHICS TRANSFER panel is displayed, as shown in Figure 8-4.

Figure 8-4 GRAPHICS TRANSFER Panel

```

----- GRAPHICS TRANSFER -----
OPTION  ==>

1 QUEUE - transfer screen image to the GDDM print request queue data set
2 SAVE  - transfer screen image to a permanent picture file (GDF)
3 PLOT  - transfer screen image to an attached plotter
4 PRINT - transfer screen image to an attached printer

Queued request: (option 1)
Printer name    ==> LSPRB32  (VTAM node name or GDDM nickname)
Number of copies ==> 1
Separator page  ==> NO
Page width (cols) ==> 75
Page depth (rows) ==> 60

Picture file: (option 2)
Data set name   ==>
Member name or  ==>
Member prefix   ==>          (the next 2-digit sequential number will be
                               appended to this prefix)

Press ENTER    to generate picture transfer
Press END KEY  to cancel request

```

Note: For specific information on the fields and options available from this panel, press **PF1** (Help).

- Step 3** Select the task you want to perform from Table 8-2 and follow the procedure specified.

Table 8-2 Transferring Graphs

To Do This	Follow This Procedure
Transfer a chart to the GDDM print request queue data set.	<ol style="list-style-type: none"> 1. In the OPTION field, type 1 (Queue). 2. Fill in the Queued request: fields on the GRAPHICS TRANSFER panel. 3. Press Enter.
Transfer the graph to a picture file on auxiliary storage for later display. <i>A picture file is a member of a partitioned data set (PDS) stored in Graphics Data Format (GDF).</i>	<ol style="list-style-type: none"> 1. If your site do not already have a graphics PDS, allocate one on auxiliary storage with these attributes: RECFM=F or FB LRECL=400 2. In the OPTION field, type 2 (Save). 3. In the Data set name field, specify the name of the PDS. 4. In the Member name field, specify the member name you want to use; or, in the Member prefix field, specify a prefix of up to six characters. 5. Press Enter. About Member Prefixes: The Member prefix field allows you to logically group a set of related graphs. Graph Manager appends a two-digit suffix (01–99) to the prefix for each unique graph. For example, if you specified the prefix TAXES, the first graph is saved as TAXES01, the second as TAXES02, and so on. Then, when you are ready to display all the TAXES graphs, you can use the PIcture command to display the graphs in numerical order.
Transfer the graph to an attached plotter. <i>A plotter can be attached to a 3179G or 3270 PC/G(.X) terminal.</i>	In the OPTION field, type 3 (Plot), and then press Enter .
Transfer the graph to a locally attached printer.	In the OPTION field, type 4 (Print), and then press Enter .

Chapter 9 Before Calling Customer Support

Before calling BMC Software Customer Support for help with a problem, see if the problem is described in this chapter. The chapter includes the following topics:

No Data in Any View	9-2
Error Messages during OS/390 PAS Initialization	9-3

No Data in Any View

If a view does not contain data, the data collector for that view might be inactive. Table 6-3 on page 6-6 lists the data collectors used for each view.

Use the DCSTAT view to determine if the data collectors are active.

Step 1 On the **COMMAND** line, type **DCSTAT** and press **Enter**.

The DCSTAT view is displayed, as shown in Figure 9-1.

Figure 9-1 DCSTAT View

DDMMYYYY HH:MM:SS ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm)MVUSS -----				
COMMAND ==>			SCROLL ==> PAGE	
CURR WIN ==> 1 ALT WIN ==>				
W1 =DCSTAT=====SJSC=====*=====DDMMYYYY==HH:MM:SS==MVUSS==D=====5				
C	Name	Data Collector	Description	Status
- - - - -				
a	BPXP	USS System Parameters		Inactive
	HFSG	HFS Global		Active
	FMNT	Mounted Filesystems		Active
	PRCS	Process Activity		Active
	WADR	WLM Address Space		Active

Step 2 If the Status column indicates that a data collector is Inactive, type **A** in the line command field, as shown above, and press **Enter** to activate the data collector.

Step 3 If the data collector continues to display a status of Inactive even after you have activated it, there could be a problem with the data collector. Check the MAINVIEW for UNIX System Services PAS job log for messages that indicate a problem with OEDG or data collectors.

Step 4 If you cannot resolve the problem, retain the job log messages and contact BMC Software Customer Support.

Error Messages during OS/390 PAS Initialization

If the following messages occur during initialization of the OS/390 PAS, a user ID has not been properly defined for the PAS.

```
ICH408I      JOB(pasname) STEP(pasname) CL(PROCESS) OMVS  
              SEGMENT NOT DEFINED
```

```
BBUGC001E    OEDG severe error: OEDG is not running with  
              superuser authority, test 1 failed
```

```
BBUGC004I    OEDG initialization complete, UXGB=19521E70
```

To correct the problem, define a user ID with superuser authority, as described in “Define a User ID for the PAS (Required)” on page 1-3.

Appendix A Understanding View Field Terminology

A standard set of terms and measurements is used to describe the information displayed in a view. Numeric values can appear differently depending upon the number of spaces provided for display.

This appendix includes the following topics:

Displaying Numeric Values	A-2
Understanding Intervals	A-2

Displaying Numeric Values

When a number is smaller than the width of a field, it is displayed appropriately in the view. When a number is larger than the width of a field, asterisks (*) appear in the view rather than data. Asterisks (*) indicate that a numeric value is too large for the width of a field.

Decimal values are rounded to accommodate the width of a field. Insignificant decimal places are truncated to show as much useful data as possible.

Understanding Intervals

Interval values have different meanings, depending on whether the data is historical or current.

Interval values

The PAS refreshes the current data in common storage once every 15 seconds, so a current interval value is the value recorded at the end of the last 15-second interval.

In historical mode, the interval value is equal to the number of minutes defined to the INTERVAL= parameter of the REPORT Extractor control statement. The value displayed is an average over the entire interval.

Glossary

This glossary defines BMC Software terminology. Other dictionaries and glossaries can be used in conjunction with this glossary.

Since this glossary pertains to BMC Software-related products, some of the terms defined might not appear in this book.

To help you find the information you need, this glossary uses the following cross-references:

Contrast with indicates a term that has a contrary or contradictory meaning.

See indicates an entry that is a synonym or contains expanded information.

See also indicates an entry that contains related information.

action	Defined operation, such as modifying a MAINVIEW window, that is performed in response to a command. <i>See</i> object.
active window	Any MAINVIEW window in which data can be refreshed. <i>See</i> alternate window, current window, window.
administrative view	Display from which a product's management tasks are performed, such as the DSLIST view for managing historical data sets. <i>See</i> view.
ALT WIN field	Input field that allows you to specify the window identifier for an alternate window where the results of a hyperlink are displayed. <i>See</i> alternate window.
Alternate Access	<i>See</i> MAINVIEW Alternate Access.
alternate form	View requested through the FORM command that changes the format of a previously displayed view to show related information. <i>See also</i> form, query.

alternate window	(1) Window that is specifically selected to display the results of a hyperlink. (2) Window whose identifier is defined to the ALT WIN field. <i>Contrast with</i> current window. <i>See</i> active window, window, ALT WIN field.
analyzer	(1) Online display that presents a snapshot of status and activity data and indicates problem areas. (2) Component of CMF MONITOR. <i>See</i> CMF MONITOR Analyzer.
application	(1) Program that performs a specific set of tasks within a MAINVIEW product. (2) In MAINVIEW VistaPoint, combination of workloads to enable display of their transaction performance data in a single view.
application trace	<i>See</i> trace.
ASCH workload	Workload comprising Advanced Program-to-Program Communication (APPC) address spaces.
AutoCustomization	Online facility for customizing the installation of products. AutoCustomization provides an ISPF panel interface that both presents customization steps in sequence and provides current status information about the progress of the installation.
automatic screen update	Usage mode wherein the currently displayed screen is refreshed automatically with new data at an interval you specify. Invoked by the ASU command.
batch workload	Workload consisting of address spaces running batch jobs.
BBI	Basic architecture that distributes work between workstations and multiple OS/390 targets for BMC Software MAINVIEW products.
BBI-SS PAS	<i>See</i> BBI subsystem product address space.
BBI subsystem product address space (BBI-SS PAS)	OS/390 subsystem address space that manages communication between local and remote systems and that contains one or more of the following products: <ul style="list-style-type: none"> • MAINVIEW AutoOPERATOR • MAINVIEW for CICS • MAINVIEW for DB2 • MAINVIEW for DBCTL • MAINVIEW for IMS Online • MAINVIEW for MQSeries (formerly Command MQ for S/390) • MAINVIEW SRM • MAINVIEW VistaPoint (for CICS, DB2, DBCTL, and IMS workloads)
BBPARM	<i>See</i> parameter library.

BBPROC	<i>See</i> procedure library.
BBPROF	<i>See</i> profile library.
BBSAMP	<i>See</i> sample library.
BBV	<i>See</i> MAINVIEW Alternate Access.
BBXS	BMC Software Subsystem Services. Common set of service routines loaded into common storage and used by several BMC Software MAINVIEW products.
border	Visual indication of the boundaries of a window.
bottleneck analysis	Process of determining which resources have insufficient capacity to provide acceptable service levels and that therefore can cause performance problems.
CA-Disk	Data management system by Computer Associates that replaced the DMS product.
CAS	Coordinating address space. One of the address spaces used by the MAINVIEW windows environment architecture. The CAS supplies common services and enables communication between linked systems. Each OS/390 or z/OS image requires a separate CAS. Cross-system communication is established through the CAS using VTAM and XCF communication links.
CFMON	<i>See</i> coupling facility monitoring.
chart	Display format for graphical data. <i>See also</i> graph.
CICSplex	User-defined set of one or more CICS systems that are controlled and managed as a single functional entity.
CMF MONITOR	Comprehensive Management Facility MONITOR. Product that measures and reports on all critical system resources, such as CPU, channel, and device usage; memory, paging, and swapping activity; and workload performance.
CMF MONITOR Analyzer	Batch component of CMF MONITOR that reads the SMF user and 70 series records created by the CMF MONITOR Extractor and/or the RMF Extractor and formats them into printed system performance reports.
CMF MONITOR Extractor	Component of CMF that collects performance statistics for CMF MONITOR Analyzer, CMF MONITOR Online, MAINVIEW for OS/390, and RMF postprocessor. <i>See</i> CMF MONITOR Analyzer, CMF MONITOR Online, MAINVIEW for OS/390.

CMF MONITOR Online

Component of CMF that uses the MAINVIEW window interface to present data on all address spaces, their use of various system resources, and the delays that each address space incurs while waiting for access to these resources. *See* CMF MONITOR, MAINVIEW for OS/390.

CMF Type 79 API

Application programming interface, provided by CMF, that provides access to MAINVIEW SMF-type 79 records.

CMFMON

Component of CMF MONITOR that simplifies online retrieval of information about system hardware and application performance and creates MAINVIEW SMF-type 79 records.

The CMFMON *online facility* can be used to view data in one or more formatted screens.

The CMFMON *write facility* can be used to write collected data as MAINVIEW SMF-type 79 records to an SMF or sequential data set.

CMRDETL

MAINVIEW for CICS data set that stores detail transaction records (type 6E) and abend records (type 6D). Detail records are logged for each successful transaction. Abend records are written when an abend occurs. Both records have the same format when stored on CMRDETL.

CMRSTATS

MAINVIEW for CICS data set that stores both CICS operational statistic records, at five-minute intervals, and other records, at intervals defined by parameters specified during customization (using CMRSOPT).

column

Vertical component of a view or display, typically containing fields of the same type of information, that varies by the objects associated in each row.

collection interval

Length of time data is collected. *See also* delta mode, total mode.

command delimiter

Special character, usually a ; (semicolon), used to stack commands typed concurrently on the COMMAND line for sequential execution.

COMMAND line

Line in the control area of the display screen where primary commands can be typed. *Contrast with* line command column.

Command MQ Automation D/S

Command MQ agents, which provide local proactive monitoring for both MQSeries and MSMQ (Microsoft message queue manager). The Command MQ agents operate at the local node level where they continue to perform functions regardless of the availability of the MQM (message queue manager) network. Functionality includes automatic monitoring and restarts of channels, queue managers, queues and command servers. In cases where automated recovery is not possible, the agents transport critical alert information to a central console.

Command MQ Automation S/390

Command MQ component, which monitors the MQM (message queue manager) networks and intercedes to perform corrective actions when problems arise. Solutions include:

- Dead-Letter Queue management
- System Queue Archival
- Service Interval Performance solutions
- Channel Availability

These solutions help ensure immediate relief to some of the most pressing MQM operations and performance problems.

Command MQ for D/S

Command MQ for D/S utilizes a true client/server architecture and employs resident agents to provide configuration, administration, performance monitoring and operations management for the MQM (message queue manager) network.

Command MQ for S/390

See MAINVIEW for MQSeries.

COMMON STORAGE MONITOR

Component of MAINVIEW for OS/390 that monitors usage and reconfigures OS/390 or z/OS common storage blocks.

composite workload

Workload made up of a WLM workload or other workloads, which are called *constituent workloads*.

constituent workload

Member of a composite workload. Constituent workloads in a composite usually belong to a single workload class, but sometimes are mixed.

contention

Occurs when there are more requests for service than there are servers available.

context

In a Plex Manager view, field that contains the name of a target or group of targets specified with the CONTEXT command. *See* scope, service point, SSI context, target context.

CONTEXT command

Specifies either a MAINVIEW product and a specific target for that product (*see* target context) or a MAINVIEW product and a name representing one or more targets (*see* SSI context) for that product.

control statement	(1) Statement that interrupts a sequence of instructions and transfers control to another part of the program. (2) Statement that names samplers and other parameters that configure the MAINVIEW components to perform specified functions. (3) In CMF MONITOR, statement in a parameter library member used to identify a sampler in the extractor or a report in the analyzer, or to describe either component's processing requirements to the operating system.
coupling facility monitoring (CFMON)	Coupling facility views that monitor the activity of your system's coupling facilities.
current data	Data that reflects the system in its current state. The two types of current data are real-time data and interval data. <i>Contrast with</i> historical data. <i>See also</i> interval data, real-time data.
current window	In the MAINVIEW window environment, window where the main dialog with the application takes place. The current window is used as the default window destination for commands issued on the COMMAND line when no window number is specified. <i>Contrast with</i> alternate window. <i>See</i> active window, window.
DASD	(Direct Access Storage Device) (1) A device with rotating recording surfaces that provides immediate access to stored data. (2) Any device that responds to a DASD program.
DASD ADVISOR	An interactive software tool that diagnoses DASD performance problems and makes recommendations to reduce overall service time. This tool measures and reports on the operational performance of IBM and IBM-compatible devices.
data collector	Program that belongs to a MAINVIEW product and that collects data from various sources and stores the data in records used by views. For example, MAINVIEW for OS/390 data collectors obtain data from OS/390 or z/OS services, OS/390 or z/OS control blocks, CMF MONITOR Extractor control blocks, and other sources. <i>Contrast with</i> extractor.
delta mode	(1) In MAINVIEW for DB2 analyzer displays, difference between the value sampled at the start of the current statistics interval and the value sampled by the current analyzer request. <i>See also</i> statistics interval. (2) In CMFMON, usage mode wherein certain columns of data reflect the difference in values between one sample cycle and the next. Invoked by the DELta ON command. <i>See also</i> collection interval, sample cycle, total mode.
DFSMS	(Data Facility Storage Management System) Data management, backup, and HSM software from IBM for OS/390 or z/OS mainframes.
DMR	<i>See</i> MAINVIEW for DB2.

DMS	(Data Management System) <i>See</i> CA-Disk.
DMS2HSM	<i>See</i> MAINVIEW SRM DMS2HSM.
DSO	(Data Set Optimizer) CMF MONITOR Extractor component that uses CMF MONITOR Extractor data to produce reports specifying the optimal ordering of data sets on moveable head devices.
EasyHSM	<i>See</i> MAINVIEW SRM EasyHSM.
EasyPOOL	<i>See</i> MAINVIEW SRM EasyPOOL.
EasySMS	<i>See</i> MAINVIEW SRM EasySMS.
element	(1) Data component of a data collector record, shown in a view as a field. (2) Internal value of a field in a view, used in product functions.
element help	Online help for a field in a view. The preferred term is <i>field help</i> .
Enterprise Storage Automation	<i>See</i> MAINVIEW SRM Enterprise Storage Automation.
event	A message issued by Enterprise Storage Automation. User-defined storage occurrences generate events in the form of messages. These events provide an early warning system for storage problems and are routed to user-specified destinations for central viewing and management.
Event Collector	Component for MAINVIEW for IMS Online, MAINVIEW for IMS Offline, and MAINVIEW for DBCTL that collects data about events in the IMS environment. This data is required for Workload Monitor and optional for Workload Analyzer (except for the workload trace service). This data also is recorded as transaction records (X'FA') and program records (X'F9') on the IMS system log for later use by the MAINVIEW for IMS Offline components: Performance Reporter and Transaction Accountant.
expand	Predefined link from one display to a related display. <i>See also</i> hyperlink.
extractor	Program that collects data from various sources and keeps the data control blocks to be written as records. Extractors obtain data from services, control blocks, and other sources. <i>Contrast with</i> data collector.
extractor interval	<i>See</i> collection interval.
fast path	Predefined link between one screen and another. To use the fast path, place the cursor on a single value in a field and press Enter . The resulting screen displays more detailed information about the selected value. <i>See also</i> hyperlink.

field	Group of character positions within a screen or report used to type or display specific information.
field help	Online help describing the purpose or contents of a field on a screen. To display field help, place the cursor anywhere in a field and press PF1 (HELP). In some products, field help is accessible from the screen help that is displayed when you press PF1 .
filter	Selection criteria used to limit the number of rows displayed in a view. Data that does not meet the selection criteria is not displayed. A filter is composed of an element, an operator, and an operand (a number or character string). Filters can be implemented in view customization, through the PARM/QPARM commands, or through the Where/QWhere commands. Filters are established against elements of data.
fire	The term used to indicate that an event has triggered an action. In MAINVIEW AutoOPERATOR, when a rule selection criteria matches an incoming event and <i>fires</i> , the user-specified automation actions are performed. This process is also called <i>handling</i> the event.
fixed field	Field that remains stationary at the left margin of a screen that is scrolled either right or left.
FOCAL POINT	MAINVIEW product that displays a summary of key performance indicators across systems, sites, and applications from a single terminal.
form	One of two constituent parts of a view; the other is query. A form defines how the data is presented; a query identifies the data required for the view. <i>See also</i> query, view.
full-screen mode	Display of a MAINVIEW product application or service on the entire screen. There is no window information line. <i>Contrast with</i> windows mode.
global command	Any MAINVIEW window interface command that can affect all windows in the window area of a MAINVIEW display.
graph	Graphical display of data that you select from a MAINVIEW window environment view. <i>See also</i> chart.
hilevel	For MAINVIEW products, high-level data set qualifier required by a site's naming conventions.
historical data	(1) Data that reflects the system as it existed at the end of a past recording interval or the duration of several intervals. (2) Any data stored in the historical database and retrieved using the TIME command. <i>Contrast with</i> current data, interval data and real-time data.

historical database	Collection of performance data written at the end of each installation-defined recording interval and containing up to 100 VSAM clusters. Data is extracted from the historical database with the TIME command. <i>See</i> historical data.
historical data set	In MAINVIEW products that display historical data, VSAM cluster file in which data is recorded at regular intervals.
HSM	(Hierarchical Storage Management) Automatic movement of files from hard disk to slower, less-expensive storage media. The typical hierarchy is from magnetic disk to optical disk to tape.
hyperlink	<p>(1) Preset field in a view or an EXPAND line on a display that permits you to</p> <ul style="list-style-type: none"> • access cursor-sensitive help • issue commands • link to another view or display <p>The transfer can be either within a single product or to a related display/view in a different BMC Software product. Generally, hyperlinked fields are highlighted. (2) Cursor-activated short path from a topic or term in online help to related information. <i>See also</i> fast path.</p>
Image log	<p>Collection of screen-display records. Image logs can be created for both the BBI-SS PAS and the BBI terminal session (TS).</p> <p>The BBI-SS PAS Image log consists of two data sets that are used alternately: as one fills up, the other is used. Logging to the BBI-SS PAS Image log stops when both data sets are filled and the first data set is not processed by the archive program.</p> <p>The TS Image log is a single data set that wraps around when full.</p>
IMSPlex System Manager (IPSM)	MVIMS Online and MVDBC service that provides Single System Image views of resources and bottlenecks for applications across one or more IMS regions and systems.
interval data	<p>Cumulative data collected during a collection interval. Intervals usually last from 15 to 30 minutes depending on how the recording interval is specified during product customization. <i>Contrast with</i> historical data.</p> <p>Note: If change is made to the workloads, a new interval will be started.</p> <p><i>See also</i> current data and real-time data.</p>
InTune	Product for improving application program performance. It monitors the program and provides information used to reduce bottlenecks and delays.

IRUF	IMS Resource Utilization File (IRUF). IRUFs can be either detail (one event, one record) or summarized (more than one event, one record). A detail IRUF is created by processing the IMS system log through a program called IMFLEDT. A summarized IRUF is created by processing one or more detail IRUFs, one or more summarized IRUFs, or a combination of both, through a sort program and the TASCOSTR program.
job activity view	Report about address space consumption of resources. <i>See</i> view.
journal	Special-purpose data set that stores the chronological records of operator and system actions.
Journal log	<p>Collection of messages. Journal logs are created for both the BBI-SS PAS and the BBI terminal session (TS).</p> <p>The BBI-SS PAS Journal log consists of two data sets that are used alternately: as one fills up, the other is used. Logging to the BBI-SS PAS Journal log stops when both data sets are filled and the first data set is not being processed by the archive program.</p> <p>The TS Journal log is a single data set that wraps around when full.</p>
line command	Command that you type in the line command column in a view or display. Line commands initiate actions that apply to the data displayed in that particular row.
line command column	Command input column on the left side of a view or display. <i>Contrast with</i> COMMAND line.
Log Edit	In the MAINVIEW for IMS Offline program named IMFLEDT, function that extracts transaction (X'FA') and program (X'F9') records from the IMS system log. IMFLEDT also extracts certain records that were recorded on the system log by IMS. IMFLEDT then formats the records into a file called the IMS Resource Utilization File (IRUF).
MAINVIEW	BMC Software integrated systems management architecture.
MAINVIEW Alarm Manager (MV ALARM)	In conjunction with other MAINVIEW products, notifies you when an exception occurs. MAINVIEW Alarm Manager is capable of monitoring multiple systems simultaneously, which means that MAINVIEW Alarm Manager installed on one system keeps track of your entire sysplex. You can then display a single view that shows exceptions for all MAINVIEW performance monitors within your OS/390 or z/OS enterprise.

MAINVIEW Alternate Access

Enables MAINVIEW products to be used without TSO by providing access through EXCP and VTAM interfaces.

MAINVIEW Application Program Interface (MVAPI)

A CLIST- or REXX-based, callable interface that allows MAINVIEW AutoOPERATOR EXECs to access MAINVIEW monitor product view data.

MAINVIEW AutoOPERATOR

Product that uses tools, techniques, and facilities to automate routine operator tasks and provide online performance monitoring, and that achieves high availability through error minimization, improved productivity, and problem prediction and prevention.

MAINVIEW control area

In the MAINVIEW window environment, first three lines at the top of the view containing the window information line and the COMMAND, SCROLL, CURR WIN, and ALT WIN lines. The control area cannot be customized and is part of the information display. *Contrast with* MAINVIEW display area, MAINVIEW window area.

MAINVIEW Desktop Version of the MAINVIEW window interface designed to run on OS/2 and Windows workstations.

MAINVIEW display area

See MAINVIEW window area.

MAINVIEW Explorer Product that provides access to MAINVIEW products from a Web browser running under Windows. MAINVIEW Explorer replaces MAINVIEW Desktop.

MAINVIEW for CICS Product (formerly MV MANAGER for CICS) that provides real-time application performance analysis and monitoring for CICS system management.

MAINVIEW for DB2 Product (formerly MV MANAGER for DB2) that provides real-time and historical application performance analysis and monitoring for DB2 subsystem management.

MAINVIEW for DBCTL (MVDBC)

Product that provides real-time application performance analysis and monitoring for DBCTL management.

MAINVIEW for IMS (MVIMS) Offline

Product with a Performance Reporter component that organizes data and prints reports used to analyze IMS performance and a Transaction Accountant component that produces cost accounting and user charge-back records and reports.

MAINVIEW for IMS (MVIMS) Online

Product that provides real-time application performance analysis and monitoring for IMS management.

MAINVIEW for IP

Product that monitors OS/390 and z/OS mission-critical application performance as it relates to TCP/IP stack usage. Collected data includes availability, connections, response times, routers, service levels, storage, traffic, Web cache, and so on.

MAINVIEW for Linux–Servers

Product that allows you to monitor the performance of your Linux systems from the MAINVIEW windows interface.

MAINVIEW for MQSeries (formerly known as Command MQ for S/390)

Delivers comprehensive capabilities for configuration, administration, performance monitoring and operations management for an entire MQM (message queue manager) network.

MAINVIEW for OS/390

System management application (formerly known as MAINVIEW for MVS prior to version 2.5). Built upon the MAINVIEW window environment architecture, it uses the window interface to provide access to system performance data and other functions necessary in the overall management of an enterprise.

MAINVIEW for UNIX System Services

System management application that allows you to monitor the performance of the Unix System Services from a MAINVIEW window interface.

MAINVIEW for VTAM

Product that displays application performance data by application, transaction ID, and LU name. This collected data includes connections, response time statistics, application availability, and application throughput.

MAINVIEW for WebSphere Application Server (formerly known as MAINVIEW for WebSphere)

Product that provides extensive monitoring for the IBM WebSphere Application Server for z/OS and OS/390 environment.

MAINVIEW Selection Menu

ISPF selection panel that provides access to all MAINVIEW windows-mode and full-screen mode products.

MAINVIEW SRM

See MAINVIEW Storage Resource Manager (SRM).

MAINVIEW SRM DMS2HSM

Product that facilitates the conversion of CA-Disk, formerly known as DMS, to HSM.

MAINVIEW SRM EasyHSM

Product that provides online monitoring and reporting to help storage managers use DFHSM efficiently.

MAINVIEW SRM EasyPOOL

Product that provides control over data set allocation and enforcement of allocation and naming standards. EasyPOOL functions operate at the operating system level to intercept normal job processing, thus providing services without any JCL changes.

MAINVIEW SRM EasySMS

Product that provides tools that aid in the conversion to DFSMS and provides enhancement to the DFSMS environment after implementation. EasySMS consists of the EasyACS functions, the SMSACSTE function, and the Monitoring and Positioning Facility.

MAINVIEW SRM Enterprise Storage Automation

Product that delivers powerful event generation and storage automation technology across the storage enterprise. Used in conjunction with MAINVIEW AutoOPERATOR, automated solutions to perform pool, volume, application, or data set-level manipulation can be created and used in response to any condition or invoked to perform ad hoc requests.

MAINVIEW SRM SG-Auto

Product that provides early warning notification of storage anomalies and automated responses to those anomalies based on conditions in the storage subsystem.

MAINVIEW SRM SG-Control

Product that provides real-time monitoring, budgeting, and control of DASD space utilization.

MAINVIEW SRM StopX37/II

Product that provides enhancements to OS/390 or z/OS space management, reducing the incidence of space-related processing problems. The StopX37/II functions operate at the system level to intercept abend conditions or standards violations, thus providing services without any JCL changes.

MAINVIEW SRM StorageGUARD

Product that monitors and reports on DASD consumption and provides historical views to help control current and future DASD usage.

MAINVIEW Storage Resource Manager (SRM)

Suite of products that assist in all phases of OS/390 or z/OS storage management. MAINVIEW SRM consists of products that perform automation, reporting, trend analysis, and error correction for storage management.

MAINVIEW SYSPROG Services

See SYSPROG services.

MAINVIEW VistaPoint

Product that provides enterprise-wide views of performance. Application and workload views are available for CICS, DB2, DBCTL, IMS, OS/390, or z/OS. Data is summarized at the level of detail needed; for example, views can be for a single target, an OS/390 or z/OS image, or an entire enterprise.

MAINVIEW window area

Portion of the information display that is not the control area and in which views are displayed and windows opened. It includes all but the first three lines of the information display. *Contrast with* MAINVIEW control area.

monitor

Online service that measures resources or workloads at user-defined intervals and issues warnings when user-defined thresholds are exceeded.

Multi-Level Automation (MLA)

The user-defined, multiple step process in Enterprise Storage Automation that implements solutions in a tiered approach, where solutions are invoked one after another until the condition is resolved.

MVALARM

See MAINVIEW Alarm Manager.

MVAPI

See MAINVIEW Application Program Interface.

MVCICS

See MAINVIEW for CICS.

MVDB2

See MAINVIEW for DB2.

MVDBC

See MAINVIEW for DBCTL.

MVIMS

See MAINVIEW for IMS.

MVIP

See MAINVIEW for IP.

MVLNX

See MAINVIEW for Linux–Servers.

MVMQ

See MAINVIEW for MQSeries.

MVMVS

See MAINVIEW for OS/390.

MVScope

MAINVIEW for OS/390 application that traces both CPU usage down to the CSECT level and I/O usage down to the channel program level.

MVSRM

See MAINVIEW Storage Resource Manager (SRM).

MVSRMHSM

See MAINVIEW SRM EasyHSM.

MVSRMSGC	<i>See</i> MAINVIEW SRM SG-Control.
MVSRMSGD	<i>See</i> MAINVIEW SRM StorageGUARD.
MVSRMSGP	<i>See</i> MAINVIEW SRM StorageGUARD.
MVUSS	<i>See</i> MAINVIEW for UNIX System Services.
MVVP	<i>See</i> MAINVIEW VistaPoint.
MVVTAM	<i>See</i> MAINVIEW for VTAM.
MVWEB	<i>See</i> MAINVIEW for WebSphere Application Server.
nested help	Multiple layers of help pop-up windows. Each successive layer is accessed by clicking a hyperlink from the previous layer.
object	<p>Anything you can manipulate as a single unit. MAINVIEW objects can be any of the following: product, secondary window, view, row, column, or field.</p> <p>You can issue an action against an object by issuing a line command in the line command column to the left of the object. <i>See</i> action.</p>
OMVS workload	Workload consisting of OS/390 OpenEdition address spaces.
online help	Help information that is accessible online.
OS/390 and z/OS Installer	BMC Software common installation system for mainframe products.
OS/390 product address space (PAS)	Address space containing OS/390 or z/OS data collectors, including the CMF MONITOR Extractor. Used by MAINVIEW for OS/390, MAINVIEW for UNIX System Services, and CMF MONITOR products. <i>See</i> PAS.
parameter library	<p>Data set consisting of members that contain parameters for specific MAINVIEW products or a support component. There can be several versions:</p> <ul style="list-style-type: none"> the distributed parameter library, called BBPARM a site-specific parameter library or libraries <p>These can be</p> <ul style="list-style-type: none"> a library created by AutoCustomization, called UBBPARM a library created manually, with a unique name

PAS	Product address space. Used by the MAINVIEW products. Contains data collectors and other product functions. <i>See also</i> OS/390 product address space (PAS) <i>and</i> BBI subsystem product address space (BBI-SS PAS).
performance group workload	Collection of address spaces defined to OS/390 or z/OS. If you are running OS/390 or z/OS with WLM in compatibility mode, MAINVIEW for OS/390 creates a performance group workload instead of a service class.
PERFORMANCE MANAGER	MAINVIEW for CICS online service for monitoring and managing current performance of CICS regions.
Performance Reporter (MVIMS)	MVIMS Offline component that organizes data and prints reports that can be used to analyze IMS performance.
Performance Reporter	Product component that generates offline batch reports. The following products can generate these reports: <ul style="list-style-type: none">• MAINVIEW for DB2• MAINVIEW for CICS
Plex Manager	Product through which cross-system communication, MAINVIEW security, and an SSI context are established and controlled. Plex Manager is shipped with MAINVIEW window environment products as part of the coordinating address space (CAS) and is accessible as a menu option from the MAINVIEW Selection Menu.
pop-up display	Full-screen panel that displays additional information about a selected event in a detail trace.
pop-up window	Window containing help information that, when active, overlays part of the window area. A pop-up window is displayed when you issue the HELP command while working in windows-mode.
PRGP workload	In MVS/SP 5.0 or earlier, or in compatibility mode in MVS/SP 5.1 or later, composite of service classes. MAINVIEW for OS/390 creates a performance group workload for each performance group defined in the current IEAIPS.xx member.

procedure library Data set consisting of members that contain executable procedures used by MAINVIEW AutoOPERATOR. These procedures are execute command lists (EXECs) that automate site functions. There can be several versions:

- the distributed parameter library, called BBPROC
- a site-specific parameter library or libraries

These can be

- a library created by AutoCustomization, called UBBPROC
- a library created manually, with a unique name

The site-created EXECs can be either user-written or customized MAINVIEW AutoOPERATOR-supplied EXECs from BBPROC.

product address space

See PAS.

profile library

Data set consisting of members that contain profile information and cycle refresh definitions for a terminal session connected to a BBI-SS PAS. Other members are dynamically created by MAINVIEW applications. There can be several versions:

- the distributed profile library, called BBPROF
- a site-specific profile library or libraries

These can be

- a library created by AutoCustomization, called SBBPROF
- a library created manually, with a unique name

The site library is a common profile shared by all site users. The terminal session CLIST creates a user profile automatically if one does not exist; it is called `userid.BBPROF`, where `userid` is your logon ID. User profile libraries allow each user to specify unique PF keys, CYCLE commands, target system defaults, a Primary Option Menu, and a unique set of application profiles.

query

One of two constituent parts of a view; the other is form. A query defines the data for a view; a form defines the display format. *See also* form, view.

real-time data

Performance data as it exists at the moment of inquiry. Real-time data is recorded during the smallest unit of time for data collection. *Contrast with* historical data. *See also* current data and interval data.

Resource Analyzer

Online real-time displays used to analyze IMS resources and determine which are affected by specific workload problems.

Resource Monitor	Online data collection services used to monitor IMS resources and issue warnings when defined utilization thresholds are exceeded.
row	(1) Horizontal component of a view or display comprising all the fields pertaining to a single device, address space, user, and so on. (2) Horizontal component of a DB2 table consisting of a sequence of values, one for each column of the table.
RxD2	Product that provides access to DB2 from REXX. It provides tools to query the DB2 catalog, issue dynamic SQL, test DB2 applications, analyze EXPLAIN data, generate DDL or DB2 utility JCL, edit DB2 table spaces, perform security administration, and much more.
sample cycle	<p>Time between data samples.</p> <p>For the CMF MONITOR Extractor, this is the time specified in the extractor control statements (usually 1 to 5 seconds).</p> <p>For real-time data, the cycle is not fixed. Data is sampled each time you press Enter.</p>
sample library	<p>Data set consisting of members each of which contains one of the following items:</p> <ul style="list-style-type: none"> • sample JCL that can be edited to perform specific functions • macro that is referenced in the assembly of user-written services • sample user exit routine <p>There can be several versions:</p> <ul style="list-style-type: none"> • the distributed sample library, called BBSAMP • a site-specific sample library or libraries <p>These can be</p> <ul style="list-style-type: none"> • a library created by AutoCustomization, called UBBSAMP • a library created manually, with a unique name
sampler	Program that monitors a specific aspect of system performance. Includes utilization thresholds used by the Exception Monitor. The CMF MONITOR Extractor contains samplers.
SBBPROF	<i>See</i> profile library.
scope	Subset of an SSI context. The scope could be all the data for the context or a subset of data within the context. It is user- or site-defined. <i>See</i> SSI context, target.

screen definition	Configuration of one or more views that have been stored with the SAVEScr command and assigned a unique name. A screen includes the layout of the windows and the view, context, system, and product active in each window.
selection view	In MAINVIEW products, view displaying a list of available views.
service class workload	<p>Collection of address spaces defined to OS/390 or z/OS. If you are running Workload Manager (WLM) in goal mode, MAINVIEW for OS/390 creates a service class workload for each service class that you define through WLM definition dialogs.</p> <p>If you are running MVS 4.3 or earlier, or MVS/SP 5.1 or later with WLM in compatibility mode, OS/390 creates a performance group workload instead of a service class. <i>See</i> performance group workload.</p>
service objective	Workload performance goal, specified in terms of response time for TSO workloads or turnaround time for batch workloads. Performance group workloads can be measured by either objective. Composite workload service objectives consist of user-defined weighting factors assigned to each constituent workload. For compatibility mode, neither OS/390 nor z/OS provides any way to measure service.
service point	<p>Specification, to MAINVIEW, of the services required to enable a specific product. Services can be actions, selectors, or views. Each target (for example, CICS, DB2, or IMS) has its own service point.</p> <p>The PLEX view lists all the defined service points known to the CAS to which the terminal session is connected.</p>
service request block (SRB)	Control block that represents a routine to be dispatched. SRB mode routines generally perform work for the operating system at a high priority. An SRB is similar to a task control block (TCB) in that it identifies a unit of work to the system. <i>See also</i> task control block.
service select code	Code entered to invoke analyzers, monitors, and general services. This code is also the name of the individual service.
session	Total period of time an address space has been active. A session begins when monitoring can be performed. If the product address space (PAS) starts after the job, the session starts with the PAS.
SG-Auto	<i>See</i> MAINVIEW SRM SG-Auto.
SG-Control	<i>See</i> MAINVIEW SRM SG-Control.

single system image (SSI)

Feature of the MAINVIEW window environment architecture where you can view and perform actions on multiple OS/390 or z/OS systems as though they were a single system. The rows of a single tabular view can contain rows from different OS/390 or z/OS images.

Skeleton Tailoring Facility

A facility in MAINVIEW AutoOPERATOR that allows skeleton JCL to be used during job submission. Skeleton JCL can contain variables within the JCL statements to be substituted with data values at job submission time. Directive statements can be used in the skeleton JCL to cause the repetition of a set of skeleton statements. This facility functions similar to the TSO skeleton tailoring facility.

SRB

See service request block.

SSI

See single system image.

SSI context

Name created to represent one or more targets for a given product. *See* context, target.

started task workload

Address spaces running jobs that were initiated programmatically.

statistics interval

For MAINVIEW for DB2, cumulative count within a predefined interval (30-minute default set by the DB2STATS parameter in the distributed BBPARM member BBIISP00) for an analyzer service DELTA or RATE display. Specifying the DELTA parameter displays the current value as the difference between the value sampled by the current analyzer request and the value sampled at the start of the current interval. Specifying the RATE parameter displays the current value by minute (DELTA divided by the number of elapsed minutes).

stem variables

A REXX facility, supported in MAINVIEW AutoOPERATOR REXX EXECs and the Skeleton Tailoring Facility, where variable names end with a period followed by a number, such as &POOL.1. This configuration allows each variable to actually represent a table or array of data, with the zero variable containing the number of entries in the array. For example, &POOL.0 = 5 would indicate variables &POOL.1 through &POOL.5 exist.

StopX37/II

See MAINVIEW SRM StopX37/II.

StorageGUARD

See MAINVIEW SRM StorageGUARD.

summary view

View created from a tabular view using the Summarize option in view customization. A summary view compresses several rows of data into a single row based on the summarize criteria.

SYSPROG services	Component of MAINVIEW for OS/390. Over 100 services that detect, diagnose, and correct OS/390 or z/OS system problems as they occur. Accessible from the OS/390 Performance and Control Main Menu. Note that this component is also available as a stand-alone product MAINVIEW SYSPROG Services.
system resource	<i>See</i> object.
target	Entity monitored by one or more MAINVIEW products, such as an OS/390 or z/OS image, an IMS or DB2 subsystem, a CICS region, or related workloads across systems. <i>See</i> context, scope, SSI context.
target context	Single target/product combination. <i>See</i> context.
TASCOSTR	MAINVIEW for IMS Offline program that summarizes detail and summary IMS Resource Utilization Files (IRUFs) to be used as input to the offline components.
task control block (TCB)	Address space-specific control block that represents a unit of work that is dispatched in the address space in which it was created. <i>See also</i> service request block.
TCB	<i>See</i> task control block.
terminal session (TS)	Single point of control for MAINVIEW products, allowing data manipulation and data display and providing other terminal user services for MAINVIEW products. The terminal session runs in a user address space (either a TSO address space or a stand-alone address space for EXCP/VTAM access).
TDIR	<i>See</i> trace log directory.
threshold	Specified value used to determine whether the data in a field meets specific criteria.
TLDS	<i>See</i> trace log data set.
total mode	Usage mode in CMFMON wherein certain columns of data reflect the cumulative value between collection intervals. Invoked by the DELta OFF command. <i>See also</i> collection interval, delta mode.
trace	(1) Record of a series of events chronologically listed as they occur. (2) Online data collection and display services that track transaction activity through DB2, IMS, or CICS.

trace log data set (TLDS)

Single or multiple external VSAM data sets containing summary or detail trace data for later viewing or printing. The trace log(s) can be defined as needed or dynamically allocated by the BBI-SS PAS. Each trace request is assigned its own trace log data set(s).

trace log directory (TDIR)

VSAM linear data set containing one entry for each trace log data set. Each entry indicates the date and time of data set creation, the current status of the data set, the trace target, and other related information.

transaction

Specific set of input data that initiates a predefined process or job.

Transaction Accountant

MVIMS Offline component that produces cost accounting and user charge-back records and reports.

TS

See terminal session.

TSO workload

Workload that consists of address spaces running TSO sessions.

UAS

See user address space.

UBBPARM

See parameter library.

UBBPROC

See procedure library.

UBBSAMP

See sample library.

user address space

Runs a MAINVIEW terminal session (TS) in TSO, VTAM, or EXCP mode.

User BBPROF

See profile library.

view

Formatted data within a MAINVIEW window, acquired from a product as a result of a view command or action. A view consists of two parts: query and form. *See also* form, job activity view, query.

view definition

Meaning of data that appears online, including source of data, selection criteria for data field inclusion and placement, data format, summarization, context, product, view name, hyperlink fields, and threshold conditions.

view command

Name of a view that you type on the COMMAND line to display that view.

view command stack

Internal stack of up to 10 queries. For each command, the stack contains the filter parameters, sort order, context, product, and time frame that accompany the view.

view help	Online help describing the purpose of a view. To display view help, place the cursor on the view name on the window information line and press PF1 (HELP).
window	Area of the MAINVIEW screen in which views and resources are presented. A window has visible boundaries and can be smaller than or equal in size to the MAINVIEW window area. <i>See</i> active window, alternate window, current window, MAINVIEW window area.
window information line	Top border of a window. Shows the window identifier, the name of the view displayed in the window, the system, the scope, the product reflected by the window, and the tomfooleries for which the data in the window is relevant. <i>See also</i> window status field.
window number	Sequential number assigned by MAINVIEW to each window when it is opened. The window number is the second character in the window status field. <i>See also</i> window status field.
window status	One-character letter in the window status field that indicates when a window is ready to receive commands, is busy processing commands, is not to be updated, or contains no data. It also indicates when an error has occurred in a window. The window status is the first character in the window status field. <i>See also</i> window information line, window status field.
window status field	Field on the window information line that shows the current status and assigned number of the window. <i>See also</i> window number, window status.
windows mode	Display of one or more MAINVIEW product views on a screen that can be divided into a maximum of 20 windows. A window information line defines the top border of each window. <i>Contrast with</i> full-screen mode.
WLM workload	In goal mode in MVS/SP 5.1 and later, a composite of service classes. MAINVIEW for OS/390 creates a workload for each WLM workload defined in the active service policy.
workflow	Measure of system activity that indicates how efficiently system resources are serving the jobs in a workload.
workload	(1) Systematic grouping of units of work (for example, address spaces, CICS transactions, IMS transactions) according to classification criteria established by a system administrator. (2) In OS/390 or z/OS, a group of service classes within a service definition.
workload activity view	Tracks workload activity as the workload accesses system resources. A workload activity view measures workload activity in terms of resource consumption and how well the workload activity meets its service objectives.

-
- Workload Analyzer** Online data collection and display services used to analyze IMS workloads and determine problem causes.
- workload definition** Workload created through the WKLIST view. Contains a unique name, a description, an initial status, a current status, and selection criteria by which address spaces are selected for inclusion in the workload. *See* Workload Definition Facility.
- Workload Definition Facility**
In MAINVIEW for OS/390, WKLIST view and its associated dialogs through which workloads are defined and service objectives set.
- workload delay view**
Tracks workload performance as the workload accesses system resources. A workload delay view measures any delay a workload experiences as it contends for those resources.
- Workload Monitor** Online data collection services used to monitor IMS workloads and issue warnings when defined thresholds are exceeded.
- workload objectives**
Performance goals for a workload, defined in WKLIST. Objectives can include measures of performance such as response times and batch turnaround times.

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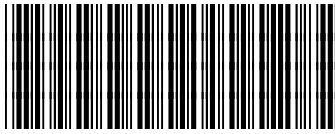
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